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## ABSTRACT

Described are eight early childhood education programs for handicapped children selected as exemplary because of elements worthy of further study or replication. Each program (in the form of a case study) is presented in terms of program operations, notable features, people, evaluation, recommendations, and informational sources. Described are the following programs: Chapel Hill Training/Outreach Program (Chapel Hill, North Carolina) offering training and technical help in curriculum methods and materials to educators of young handicapped children; Magnolia Preschool Program (Magnolia, Arkansas) serving 30 5-year-olds with an emphasis on early intervention and integration into regular classes; Model Preschool Program (Seattle, Washington) using behavior modification in individualized programs for handicapped children from birth to 6 years; PEECH Project (Champaign-Urbana, Illinois) serving 3- to 5-year-old multiply handicapped children with notable parent program and dissemination activities; Preschool and Early Education Project (Starkville, Mississippi) using its own curriculum and methodology with 4- to 7-year-olds; Portage Project (Portage, Wisconsin) applying a prescriptive, behavioral curriculum to training parents to teach their children; Rutland Center (Athens, Georgia) utilizing a psychoeducational approach with emotionally or developmentally disturbed children; and UNISTEPS Project (Minneapolis, Minnesota) stressing family involvement with hearing impaired children from birth to 6 years. (See EC 052 242, EC 052 243, and EC 052 245 for further information). (DB)

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# EXEMPLARY PROGRAMS FOR THE HANDICAPPED

ED 079890

A PROJECT TO ASSESS AND DOCUMENT  
EXEMPLARY PROGRAMS FOR THE EDUCATION  
OF THE HANDICAPPED

BY ABT ASSOCIATES INC.  
FOR THE NATIONAL INSTITUTE OF EDUCATION  
AND THE U.S. OFFICE OF EDUCATION, BUREAU  
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EARLY  
CHILDHOOD  
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Case Studies

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## FOREWORD

This report was prepared by Abt Associates Inc. for the U.S. Department of Health, Education and Welfare, National Institute of Education, Task Force on Dissemination and the Office of Education, Bureau of Education for the Handicapped under Contract OEC-0-72-5182 to "Assess, Document, and Spread Exemplary Programs for the Education of the Handicapped."

From a sample of 50 programs provided by the Bureau of Education for the Handicapped, Abt Associates selected 17 "exemplary" programs in the areas of early childhood education, career education, and manpower development as subjects for in-depth program descriptions for national dissemination. Selection was based on a telephone survey of the initial sample and an assessment of each candidate program according to general and specific criteria developed by NIE/BEH and revised by Abt Associates.

In using the term "exemplary" with regard to the programs selected, Abt Associates refers to the interesting and promising features of a program which appeared to be worthy of further study. Programs were selected on the basis of notable elements rather than on the basis of total or proven (validated) exemplariness. The word "exemplary", therefore, refers to elements in the programs which serve as examples in the field.

The seventeen program descriptions are presented in three separate volumes for easy reference: Volume II. Career Education; Volume III. Early Childhood Education; Volume IV. Manpower Development. Volume I is a Final Report documenting the activities involved in the conduct of this study.

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Model Preschool Program  
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P.E.E.C.H. Project  
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Preschool and Early Education Project  
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Portage Project  
Portage, Wisconsin

Rutland Center  
Athens, Georgia

UNISTAPS Project  
Minneapolis, Minnesota

THE CHAPEL HILL TRAINING/OUTREACH PROGRAM

CHAPEL HILL, NORTH CAROLINA

*A training and technical assistance program which uses its three years of previous experience as a preschool program to extend to professional and paraprofessional educators its methods, materials and curriculum for handicapped children.*

February 1973

Principal Author:

Donna Warner

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PART ONE:  
INTRODUCTION

OVERVIEW

The primary goal of the Chapel Hill Outreach Project (formerly the Chapel Hill Preschool Project) is to provide early education intervention for young developmentally handicapped children throughout the state of North Carolina. Seven children between the ages of three and eight receive direct services in the Project's demonstration classroom housed with the Division for Disorders in Development and Learning (DDDL) on the University of North Carolina campus. The major thrust of the Project, however, is to reach out to thousands of handicapped children across the state and to promote change in the community through intensive training programs for kindergarten - to - third-grade teachers and for North Carolina's Head Start and day-care personnel. Now in its fourth year, the Project provides technical assistance and conducts workshops for more than 400 professionals and paraprofessionals, extending to them the methods, materials, and curriculum developed and tested during the Project's three years as a demonstration preschool program.

The Project's educational approach emphasizes individual prescriptive programs for both children and their families. Techniques demonstrated in the classroom and presented in training sessions include behavioral assessment, establishment of developmentally appropriate objectives, task analysis, and the systematic use of reinforcement. Practical materials developed by Project staff include a 45 week curriculum guide and a Learning Accomplishment Profile (LAP)--a developmental assessment device that can be used by untrained paraprofessionals as well as professionals to establish individual pupil objectives and to program appropriate activities and materials for each child.

The Project has been able to extend its outreach services to programs in eight regions across the state and, at the same time, to continue its direct service component by bringing together the coordinated resources of many agencies and educational institutions including the North Carolina Council on Developmental Disabilities, the University of North Carolina, the Chapel Hill-Carrboro public school system and North Carolina's Technical Institutes.



## CONTEXT OF THE PROGRAM

The Chapel Hill Preschool Project was funded in 1968 by the Office of Education, Bureau of Education for the Handicapped (BEH) as a "First Chance" pilot preschool program. During the 1969-70 planning year, the Director worked with a few children in already-established day-care and Head Start programs to test out the applicability and effectiveness of the emerging early intervention program. Field work and research resulted in a recognition of the need for more appropriate methods and curriculum for the handicapped child: although many materials existed for the disadvantaged child, few were suitable for the low-level handicapped child, especially the non-verbal. Because testing was not considered a useful approach in structuring a teaching program, the Director worked closely with a DDDL behavioral psychologist to develop a prototype program incorporating behavior modification techniques and a prescriptive approach to teaching. Work was also begun on the 45-week curriculum guide and the Learning Accomplishment Profile (LAP).

During the next two years, the Project operated four classrooms serving approximately 45 children with a wide range of handicapping conditions including mental retardation, speech impairment, emotional disturbance and learning disorders. Staff also continued to develop additional materials and guidelines for classroom activities and for other program components such as parent and sibling programs. Training and dissemination efforts, now the primary focus of the Project, were initiated and expanded throughout the 1969-72 period.

The Outreach Project is currently funded by a \$58,000 BEH continuation grant administered through the Chapel Hill-Carrboro City Schools. The school system contributes a total of \$14,000 including office space and equipment for the Outreach staff and the salary of the DDDL classroom teacher. In-kind services and goods valued at \$21,810 are also donated to the Project by the University's Division for Disorders in Development and Learning (DDDL). These include evaluation services, therapy sessions, the services of a media specialist, staff training, classroom space and equipment and the use of facilities for workshops. The North Carolina Council on Developmental Disabilities, through its 17 regional coordinators, assists in recruiting workshop trainees and in setting up regional workshops, while North Carolina Technical Institutes provide facilities for the workshops and some travel expenses valued at \$4240.

PART TWO:  
PROGRAM OPERATIONS

DEMONSTRATION CLASSROOM

The DDDL demonstration classroom, staffed by a full-time master teacher and an assistant teacher, serves 7 children five days a week from 9:00 a.m. until 1:00 p.m. Most children currently participating in the program are also simultaneously enrolled in public school K-1 classes or day-care programs: they come from their regular classrooms each morning and return to their schools later in the day. This simultaneous enrollment policy reflects the Project's emphasis on re-entry. As soon as a child demonstrates readiness, he will return earlier each day to his regular setting until full reintegration is attained. Project staff provide public school teachers support via informal communications, technical assistance, and visits to the regular classrooms in which Project students are placed.

Classroom Schedule

The classroom schedule includes whole group, small group and individual activities with a special emphasis on observation, recordkeeping and charting behaviors. Children are grouped according to level of achievement and common behavioral objectives. The following is a typical classroom schedule:

Classroom Master Schedule

9:00	Free Play and Clean Up
9:30	Group Time
9:40	Small Group Lessons
10:00	Snack
10:15	First Individualized Lesson
10:30	Art
10:50	Music
11:10	Lunch
11:50	Second Individualized Lesson
12:05	Recreation
12:30	Perceptual-Motor Lessons
12:45	Story
12:55	Goodbye

While the teachers work with children in the classroom, Project staff, DDDL specialists, and parents may monitor activities and behaviors from an observation booth. Project staff provide feedback on teacher/child interaction, intervention

strategies and the like, while speech therapists and other specialists prepare to work with a child on an individual basis. Student interns may also observe, count and chart behaviors in the classroom as part of their graduate practicum experience.

Staff feel a well-coordinated schedule is vital to an effective learning environment. The movement of people in and out of the classroom--parent volunteers, student interns, therapists--must be unobtrusive and timed to coincide with transition breaks between activities. A daily schedule for each child is kept on the blackboard to facilitate this coordination.

### Instructional Program

The primary objective of the instructional program is to provide children with entry skills through individualized prescriptive learning experiences. Each new child is developmentally assessed and specific behavioral objectives are established in seven areas: gross motor, fine motor, self-help, social, language, behavior and cognitive. Long-range objectives, usually covering a three-to four-month period, are then translated into short-term sub-objectives and sequenced skill acquisition tasks are incorporated into the daily classroom activities. Special school readiness skills are also included in each child's program--skills often suggested by the regular K-1 teacher. A sample of daily objectives and activities for small-group and individual lessons is presented below.

#### "Theme of the week - Tools"

##### Objective for Wednesday:

To be able to identify "saw" from other tools every time on request by:

- (1) discriminating real - concrete - saw from other tools;
- (2) verbalizing label of "saw" (or approximation of label);
- (3) discriminating picture of "saw" from picture of objects and other tools;
- (4) showing how to use saw;
- (5) classifying saw as a tool (Tool is defined as something we can use to help us make and fix things.)

Procedure:

- (1) Teacher labels real object as "saw." Ask children to touch and feel saw. "Tell me what you touched."
- (2) Ask children to find saw within box of tools and objects.
- (3) Teacher or another child models how to use saw. (Have week to demonstrate.)
- (4) Children pantomime use of saw and sing song "This Is the Way We Learn to Saw" (to "This Is the Way We Wash Our Clothes").
- (5) Teacher has pictures of tools on board. Children come up and find saw among pictures.
- (6) Teacher uses flannel board. Teacher labels "saw" as tool and defines what tool is. Ask children, "Does saw belong to tool family or fruit family?" "Yes, it belongs to the tool family. A saw is a tool."
- (7) Teacher puts picture of saw with other tools on flannel board. Ask children why the saw goes there, and repeat, "The saw is a tool."
- (8) Have several categories of flannel board pictures (animals, fruits, tools, things we ride in) and ask children to which group the saw belongs.

Small Group Lesson (Based on individual children's objectives)

Objective: To make a V stroke within a 1" wide stencil path using magic marker, starting and stopping at the appropriate points 3 or 5 times on request.

Procedure:

- (1) Teacher models and labels "V" stroke in wet sand;
- (2) Child imitates in sand;
- (3) Teacher models, using her finger and a stencil, on paper starting on the green dot and stopping on the red dot;
- (4) Child uses his finger and stays within the stencil starting and stopping at appropriate points;
- (5) Teacher models and child has turn using stencil on paper with:
  - a. one-inch cube
  - b. small plastic car,
  - c. one-inch diameter chalk,
  - d. magic marker.

The Learning Accomplishment Profile (LAP) described in Part Three is typically used to establish objectives and to program appropriate activities. The 45-week curriculum guide, prepared by the Project Director, may also be used in planning learning activities: The guide suggests three to five correlated activities for each day of the week to be used in presenting body parts, clothing, seasons, and colors. Particularly stressed is the coordination of art, recreation, snack and meal time, for example, with the development of cognitive skills, language and so forth.

Strategies used in the classroom include behavior modification, task analysis and stimulus structuring. Staff emphasize that appropriate tasks must be assigned to each child to ensure success, which, in turn, will lead to a change in attitude and self-image. The teacher must avoid the negative experience of failure by providing the necessary cues and by modeling the appropriate response. Positive reinforcements are generally used to reward desirable behavior: praise and tangible rewards are alternated depending on the child and the circumstances. Inappropriate behavior is generally ignored, although intervention techniques are used as needed to redirect behavior.

#### Follow-Up

To ensure carry-over into the home and regular school setting, the Program maintains both formal and informal communications with regular teachers, providing crisis intervention as appropriate. Regular visits to the students' public school classroom are generally scheduled every four to six weeks by the DDDL teacher to coordinate continuation of the DDDL's prescriptive program in the regular setting. Special training sessions have also been conducted for K-1 teachers who receive the Project's children and who have had no previous experience with the handicapped. Follow-up in the home is accomplished through a weekly or bi-weekly report to the parents including a summary of behaviors exhibited during the week with suggested home activities to reinforce concepts learned. Figure 1, included at the end of this section, is a sample "Program for Home Follow-Up".

#### TRAINING AND DISSEMINATION

The Outreach Project provides training and disseminates materials in four general areas:

- Behavioral assessment of child's skills.
- Use and development of materials for the handicapped.
- Intervention and instructional methods including task analysis and behavior modification.
- Work with parents and siblings through counseling, interviewing, and training.

In-service training primarily addresses the wide-ranging needs of more than 400 professionals and paraprofessionals who staff Head Start and day-care pro-

grams including administrators, directors, teachers, aides, and support personnel such as cooks and bus drivers. It is provided mainly through credit workshops at Technical Institutes in eight areas of North Carolina, through distribution of training packages, and on-site consultation.

The 50-hour, eight-day workshop series are conducted by the Project Director, full-time professional staff and a consulting psychologist. Regional coordinators with the North Carolina Council on Developmental Disabilities assist in setting up the workshops, acting as liaison between day-care center personnel and the Outreach Project by contacting all day-care centers for the developmentally disabled, informing personnel about the workshops, ascertaining their willingness to participate and making arrangements at workshop sites. A variety of credit arrangements have been worked out with educational institutions and the State Department of Public Instruction whereby trainees may receive North Carolina Teaching Certificate or renewal credit, college or graduate credit or credit towards a technical associate degree, depending on their qualifications.

Strategies used in the workshops include micro-teaching, video-tapes, role-play and simulations, as well as lectures and small-group discussions. Colorful and catchy posters are often used to emphasize critical concepts with slogans such as "Little Steps for Little Feet" and "Beat the System, Program your Own Life" to underscore the importance of task analysis and individualized prescriptive programs. Training/Learning Packages and bibliographies of relevant materials are distributed to supplement workshop presentations.

The workshop series are geared to teach not only the principles of behavioral assessment, behavior modification and the like, but also to focus in on the specific techniques involved, engaging the trainees in active learning experiences. For example, a one-day workshop on behavior modification would include the following activities:

Four weeks prior to the workshop, participants are mailed a guide for preliminary reading and preparation. A pre-test is administered at the outset of the workshop, followed by an introductory lecture on behavior modification and a review of observation techniques. Pictures and video tapes are used to conduct exercises in observing and counting behaviors. Small group discussions may then be scheduled to talk about responsive teaching techniques and specifically to

learn how to increase and decrease behaviors. These discussions are formalized by actually working out a behavior modification program for children with whom each trainee is working. Post-tests are administered at the close of each workshop.

In addition to the credit workshop training, staff have provided on-site workshop training to Head Start programs and Title I teachers. The demonstration classroom also serves as a practicum site for 18 graduate students in a variety of disciplines including special education, recreation, speech therapy, psychology, social work and so forth. (On-going training and consultation is also provided to the Chapel Hill-Carrboro Head Start program which serves as a second demonstration classroom for the Outreach Project).

#### On Site Consultation

The Project attempts to provide some on-site consultation and technical assistance in actually implementing prescriptive educational programs, although no funds have been allocated for this purpose. The Project has, however, secured the services of students in the TEECH (Training in Early Education of Children with Handicaps) program at the University of North Carolina who work with centers which have received training. Plans for the future include a great deal more follow-up work with trainees and on-site consultation to measure training impact and resulting changes in the day care program. This will be carried out under the supervision of two follow-up coordinators working with satellite demonstration centers strategically located in the eastern and western sectors of the state.



Figure 1. Sample Program For Home Follow-Up

This week Alison has been working on the concepts Clothing Big/Little.

Your child can exhibit the following behaviors:

Alison has been working on pants, shirt, dress and skirt. She can consistently make touch discriminations of the named items of clothing - sleeve or collar. Alison can consistently touch "big" objects and pictures and say "big" when so requested.

Suggested activities which may be carried out at home to reinforce these concepts are:

1. As she dresses or undresses, show her the sleeve or collar. Tell her its label. Then ask her to find the sleeve or collar on her clothes, your clothes, or siblings' clothes.
2. A game to reinforce the concept of big can be played by you and other members of the family - brothers and sisters. It goes like this: say "Look, Look and see, find the big one and give it to me!"

Use blocks of the same color, or pictures from mail order catalogs or cards of the same thing. For example, a big red dress and a little red dress, a big black suitcase and a little black suitcase.



PART THREE:  
NOTABLE FEATURES

A notable feature of the Chapel Hill Outreach Project is its practical approach to educational intervention and the extension of this approach to untrained child care personnel. Materials and methods developed by Project Staff provide teachers with a precise program model within which they can exercise options and innovations. A focal point of the program--both the classroom program and the training workshops--is the Learning Accomplishment Profile (LAP): it is representative of the philosophy of developmental assessment, establishing behavioral objectives and implementing an appropriate curriculum.

The Learning Accomplishment Profile is a two-part format intended to increase the teacher's ability to identify more precisely: specific behavioral objectives; level of response capabilities; appropriate instructional materials and methods; and evaluation of teacher and pupil achievement.

The first section of the LAP provides the teacher of handicapped preschool children with a simple, behavior-oriented evaluation of the child's existing skills. It contains a hierarchy of developmentally appropriate behaviors drawn from normative data in the following areas: gross motor, fine motor, social skills, self-help, cognitive and language development.

This section is used to record behaviors exhibited when a child enters the program, to establish behavioral and skill acquisition objectives throughout the year, and to record the data these objectives are accomplished. As a recording device, the LAP reduces the emphasis on anecdotal data and can facilitate evaluation of both teacher and pupil performance. Figure 2 on the following page is a sample from this behavioral assessment section of the LAP.

Figure 2. Sample From LAP Behavioral Assessment Section

Fine Motor - Writing		FINE MOTOR (continued)		
Behavior	Age	Entry Date	Date of Achievement	Comments
Scribbles Spontaneously	13 mos.			
Imitates V strokes	24 mos.			
Imitates circular stroke	24 mos.			
Holds crayon by fingers	30 mos.			
Imitates V and H strokes	30 mos.			
Copies circle	36 mos.			
Imitates cross	36 mos.			
Traces diamond	42 mos.			
Copies cross	46 mos.			
Copies V, H	48-60 mos.			
Draws man with two parts	48 mos.			
Draws simple house	48-60 mos.			
Prints a few capitals	48-60 mos.			
Prints capital initials of own name	48-60 mos.			
Holds paper with other hand in writing	48-60 mos.			
Draws three bubbles correctly	54 mos.			

The second section of the LAP is a task-level hierarchy to guide the teacher in planning and sequencing skill development for each child. Here behavioral objectives are translated into very specific writing, self-help and cognitive sub-skills presented in sequential order, together with a range of tasks from the simplest kind of learning through the more complex. Teacher cues, materials, and other variables affecting learning--structured to elicit a correct response--are suggested for each task level. A sample from the writing and cognitive skills sections of the LAP is presented as Figure 3 on the following page.

Figure 3. Sample From LAP Task Level Hierarchy Section

I - Imitate (motor, visual, verbal cues)  
C - Copy (visual, verbal cues)

T - Trace (visual, verbal, outline cues)  
V - Verbal cue only ("Write a circle.")

WRITING	Sand-Writing				Ping. Painting				Paint With Water				Chalk on Board				Tempera Paint				Magic Marker				Primary Pencil			
	I	T	C	V	I	T	C	V	I	T	C	V	I	T	C	V	I	T	C	V	I	T	C	V	I	T	C	V
Scribbles																												
Horizontal Path-Tracing																												
Vertical Path-Tracing																												
Change of Direction																												
V-Stroke																												
Circle																												
Cross																												
Triangle																												
Square																												
Heart																												
Diamond																												

COGNITIVE DEVELOPMENT

\*G - Gesture

V - Verbalize

Body Concept	Locate Own "Touch Mary's _____"	Discriminate from others' "Touch teacher's _____"	Discrim. picture from other pictures.	Figure-ground. Locate part in picture of whole.	Associate clothing with body part.	Function "What do you (see) with?" G V*	Closure "What is missing?" cover concrete missing in picture		Verbalize "What is This?"
Head									
Eyes									
Nose									
Mouth									
Hair									
Ears									
Lips									
Teeth									
Hand									
Fingers									
Foot									
Toes									
Arm									
Leg									
Neck									

This section of the LAP also encourages precise recordkeeping. It is used not only as a guide for the teacher in sequencing tasks and selecting appropriate materials, but as an individual pupil record where task mastery and date of achievement are logged. Together, the two sections of the LAP serve as an on-going evaluation device and a foundation for year-end individual pupil evaluation reports. With its focus on identification of developmentally appropriate skills, the Outreach staff consider the Learning Accomplishment Profile a meaningful departure from the typical testing which offers little more than a statistical comparison of the handicapped child with a normal population.

PART FOUR:  
PEOPLE IN THE PROGRAM

STAFF

Core staff for the Outreach Project include the Director, a Special Education Coordinator, a Family Services Coordinator and a part time consulting behavioral psychologist, all of whom participate in both the design and execution of the training program as well as supervision of the direct service classroom. A post doctoral student, under the supervision of the consulting psychologist, is responsible for evaluation of the training component and also conducts some staff training in behavior modification. The DDL demonstration classroom serving 7 children is staffed by a master teacher paid by the public school system and an assistant teacher--usually one of several student interns available to the Project. Parent volunteers also provide occasional classroom support, particularly during free play, art, and music periods.

● Director

The Project Director is responsible for overall project administration, dissemination activities, workshop content and design, and coordination of Project activities with other agencies. Although not funded to provide training follow-up services, the Director does attempt to extend some on-site consultation to programs participating in the workshops. Additionally, the Director's role as an advocate for the young handicapped child requires speaking at many state and national professional meetings throughout the eastern United States.

● Special Educational Coordinator

The Special Education Coordinator who holds a master's degree in Special Education and Early Childhood Education is responsible for conducting several workshops and for supervising the classroom teacher. She also coordinates services for enrolled children including placement and consultation with local school teachers who receive the handicapped students in their classrooms. Other duties call for coordinating the activities of student interns and specialists working in the classroom.

● Family Services Coordinator

The Family Services Coordinator, who holds a master's degree in social work, works directly with the classroom teacher and parents to provide a continuum of services and support to families of enrolled children. Responsibilities include

making home visits and planning parent programs--both individual in-home programs and group workshops. She also supervises two social work students who are now conducting a follow-up study on children previously enrolled in the Preschool's four classrooms. Outreach activities include the preparation of training materials for parent and sibling programs as well as leading some training sessions.

- Classroom Teacher

In addition to her supervisory and teaching responsibilities in the classroom, the master teacher conducts pre-enrollment interviews and evaluations, administers the LAP and several standardized tests, develops long range and daily instructional programs for each child, and maintains frequent communication with both the child's regular public school or day care teacher and his parents.

All staff are continually engaged in the improvement of existing curriculum and training materials and with innovations in both the classroom and outreach program. These activities include the production of multi-media training packages and instructional units in conjunction with the DDDL media specialists.

### Staff Training

Pre- and in-service training during the Project's second and third years of operation included weekly two-hour sessions located on a rotating basis in each of the Project's four classrooms. Sessions conducted by the DDDL consulting psychologist focused on the application of a responsive teaching model in the classroom--using a behavioral approach to psychological and social behaviors. Teachers had to apply specific techniques with their children--defining behaviors and objectives, counting behaviors, using intervention methods--and later share their experiences with the group. Discussions centered, for example, on describing deficient behaviors (not talking, not riding a bike) or maladaptive behaviors (aggressiveness) and working out an instructional strategy. Teacher/trainees were particularly encouraged to assume responsibility for some segment of the training sessions on a monthly basis, introducing materials they had developed or interpreting to staff their own strengths and weaknesses. Other training activities included micro-teaching and role play, using video taped sessions to critique teacher performance.

Staff training during the current year has not included formalized group sessions. Rather, core staff, who have all been trained previously, attend university courses on an informal basis or receive individualized instruction from the staff in the eleven disciplines within the DDDL facility.

### Volunteers

In addition to the parents previously mentioned, classroom volunteers currently include graduate interns in special education and speech. Three speech students provide therapy sessions 6 hours per week, while the special education students work 20 hours per week in either the classroom or in the observation booth timing and charting behaviors. Each of the two social work students also spends approximately 16 hours weekly in project activities such as the parent program, a follow-up study on students previously enrolled in the Project, and evaluation of the training program. Parents who desire to engage in classroom activities may receive intensive volunteer training including a 10-week workshop program, observation of classroom techniques, discussion groups and video taping. The prescriptive parent program provides for a wide range of volunteer services. As a practicum site for students, the Project conducts orientation sessions and provides on-the-job supervision.

The Outreach Project encourages the use of volunteers and has devoted one session of its workshop series to this subject. The Project stresses, however, not the value of volunteers but effective and efficient ways in which volunteers can be used. To this end, the Project has developed guidelines for volunteers delineating responsibilities as well as "off limit" activities and a list of suggested ways to employ volunteers in the classroom.

## STUDENTS

In 1971-72, the Chapel Hill Preschool Project served 38 children between the ages of 3 and 8 in four classrooms, two located on the UNC campus and two in public elementary schools. Since the Project has moved into its outreach phase, the direct services component has been reduced to the single demonstration classroom. Increased services, on the other hand, have become available in the area as children have moved into the public schools' regular or special classes and as new privately funded programs have started up, several of which have received training in the methods and materials used by the Chapel Hill Project.

The Outreach Project currently serves seven children in the DDDL classroom and additionally provides individual programming, consultation, and follow-up for 24 children enrolled in the public schools. The classroom also serves as the site for extensive diagnostic evaluations conducted by the DDDL staff. Students are predominantly black and come from low-income families, although in previous years the Project primarily served white middle-income families. This change in the socio-economic and ethnic composition of the client population reflects a change in the Project's admissions criteria and referral pattern.

## Recruitment and Selection

Children are referred to the program from a number of sources including public school teachers and special education coordinators, the DDDL or parents themselves, although the public schools remain the primary referring agency. In previous years, most referrals were made through the DDDL or other diagnostic clinics and included many children from middle-income families that could afford to provide transportation to the Project's classrooms scattered over a large area.

Only children who cannot be served by another program--whether public or private--are now accepted for services in the demonstration classroom. Generally, these are students who have or are about to be withdrawn from public school kindergarten or first grade classes because of developmental disorders including emotional disturbance, mental retardation and behavior problems. Since the DDDL classroom is partially funded by and administered through the Chapel Hill-Carrboro public schools, admission is also limited to those residing in the district.



### Screening and Assessment

Both the Project's Special Education Coordinator and the Family Services Coordinator conduct a preliminary screening and assessment of a referred child in the child's present setting, usually a kindergarten or first grade class. They observe behaviors, assess how well the child is accepted by others in the class and review work samples, test results and other information on file. Both verbal and written reports are also solicited from the child's regular teacher. Following a review of the preliminary data collected, the Project's classroom teacher will return to the school to conduct an informal evaluation of developmental areas such as fine motor, gross motor, language, cognitive skills, etc. Project staff then discuss assessment results with the teacher, the school principal and the child's parents and contact other agencies as deemed appropriate.

Before enrollment parents complete an application form and a needs assessment form indicating their service priorities. Classroom procedures, transportation arrangements and the like are fully discussed and parents are invited to observe the classroom in the company of the Family Services Coordinator.

A child is accepted into the program on a 3 to 4-week conditional basis so he can be closely observed while alternative placements are considered. He will then be enrolled in the Project or referred to another program. Sometimes a child may be returned to the public school with a recommendation for effective program procedures. When enrollment becomes official, a second parent-teacher meeting--usually in the home--is scheduled to discuss the child's placement in the program and his objectives for learning. The public school is also informed of plans for the child, the permanence of the placement and recommended follow-up procedures.

### Placement

The Project has adopted a very flexible admissions and termination policy. Children may come in and out of the program throughout the year, or children may remain for the entire daily program or only some portion, depending on their needs. As the child progresses in the various developmental areas and exhibits school readiness skills, he will be programmed back into the regular classroom for greater portions of the day. Of the seven children

currently enrolled, one was previously attending a day-care program while four were enrolled in K-1 classes and are expected to return on a full-time basis. The youngest child attends only the DDDL classroom. According to the 1972 year end evaluation report, children enrolled in the Project during 1971-72 were placed as follows:

- 23 children graduated to other programs which would not accept them before;
- 21 were placed in special-education classes;
- 17 progressed sufficiently to be approved for enrollment in regular nursery schools, kindergartens or day-care programs for the coming year.

All Staff, including administrative staff, teachers and teacher assistants were involved in placement procedures. Social work interns assisted by assessing potential placement sites including day-care centers, special programs, private and state institutions and public school classes.

#### PARENTS

The Chapel Hill Preschool/Outreach Project has developed a multi-faceted parent and sibling program. Direct involvement of all parents with members of the Project staff has been a major overall objective achieved through parent-teacher meetings, home visits, parent group meetings, and workshops for parents and siblings. Consistent with other facets of the program, parent activities are relatively structured and incorporate a behavioral approach.

The setting of specific behavioral objectives for "distressed" individual parent/child interactions is a major part of the parent program. These objectives are formulated through observation of parent-child behavioral problems--child temper tantrums, difficulty separating, and so forth--or through parental requests for help in setting up and carrying out a program of improved child self-help skills, toilet training or language development. Staff hope that through concrete helping activities such as these, more general changes in parent attitude and feelings will result. Parents are taught and aided in taking baseline data, graphing behavioral data, instituting a systematic modification program and selecting criteria for improvement.

Not all parents need or request this intensive help. However, an individualized home program is given to parents with a teacher-suggested list of materials, games and recreational activities. In addition, a supplementary activity for a newly-learned concept or skill may be suggested by the teacher for the parent to try with the child. These activities generally do not require the type of staff involvement called for in setting up a rigorous behavior modification program in the home. The activity list is within the skill capabilities of project parents, especially in light of their experiences in Project workshop training sessions.

The Project has conducted a number of workshops for its parents and siblings including a seven-session series during 1971-72. The workshops for parents are intended to provide them with a basic set of skills and understanding of techniques and materials used in the classroom. These workshops, not unlike the training sessions for teachers, incorporate strategies such as role-play and video-tape to familiarize parents with the prescriptive teaching model and to teach technical skills including behavior modification and task analysis. Parents are also invited to observe the classroom and to review materials and records such as the Learning Accomplishment Profile. As a result of the workshops, some parents have acquired enough skills to become aides: two mothers and two fathers currently volunteer in the DDDL classroom.

A seven-session workshop was also conducted in 1971-72 for the siblings of children enrolled in the classes. The workshop objectives included learning to interpret the brother or sister's handicap to those outside the family, developing realistic expectations, and learning how to play with and relate to their handicapped brothers or sisters.

Although the current parent program places more emphasis on working individually with parents and their children, effective and frequent communications between parents and the Project remains an important facet of the Parent Program. In addition to parent-teacher meetings and home visits, the Project publishes a monthly newsletter and conducts meetings at the center to keep parents informed about project activities, individual child progress, community services for the handicapped and so forth. In an effort to improve program services, parents are asked to complete several scales and questionnaires relating to

parental priorities for service and parental perception of the developmental growth needs of their child. (See Part Five: Evaluation). Parents also serve on the Project's Advisory Council.

### COMMUNITY

The Outreach Project has extensive linkages with the University of North Carolina (UNC) community and the Chapel Hill-Carrboro community-at-large as well as with the state-wide community of agencies and professionals concerned with the education of the young handicapped child. The Project's liaison with the public school system and the University has resulted in a mutually beneficial exchange of services. The Project's affiliation with the DDDL and UNC's TEECH program (Training in Early Education for Children with Handicaps) brings the expertise of various specialists to the program for individual pupil instruction and staff training. At the same time, the Project's classroom serves as a practicum site for DDDL, TEECH and other university student interns. Project staff also conduct numerous lectures and distribute materials in a wide range of university classes. Operating under the auspices of the Chapel Hill-Carrboro public schools, the Outreach Project provides follow-up consultation to teachers of former Project students, shares teaching and curriculum materials with kindergarten and first-grade teachers, and has provided workshop training.

The Project's Advisory Council, composed of parents and representatives from nine agencies, provides additional community input. These agencies include the North Carolina Council on Developmental Disabilities, the Technical Assistance and Development Program (TADS) the North Carolina Department of Public Instruction, the public school system and other educational institution. The Council meets four times a year to coordinate support services for the continuation of the Project.

The Project also receives support from the local Community Action Agency and the Junior Service League which provide clerical assistance and transportation for children, and from Neighborhood Youth Corps members who work for the Project as clerical aides. Additionally, the Project has developed a strong relationship with Associations for Retarded Children (ARC's) and with various civic clubs and associations. The Project's work with the handicapped has recieved

community exposure through newspaper articles and television spots, while the state-wide workshops themselves serve to enhance community awareness of the educational needs of the handicapped population.



PART FIVE:  
PROGRAM EVALUATION

The Project's evaluation design stresses ongoing assessment of all program activities to provide staff and parents with frequent feedback and to identify need for improvements in both overall program operations and individual pupil instructional programs. Specific goals are established for each program component and for each child, progress toward achievement of goals is assessed throughout the year, and outcomes are identified and summarized at year-end. The evaluation plan calls for thorough documentation of training activities and classroom learning experiences including pre- and post-test measures of achievement.

Classroom Evaluation

The Learning Accomplishment Profile, weekly home follow-up reports, and individual pupil behavior modification charts are used to monitor and document pupil progress toward assigned objectives and, at the same time, provide staff with an indicator of their effectiveness in establishing objectives and sequencing tasks. These records are used to prepare individual pupil year-end reports and quantitative summary classroom data.

● Individual Year-End Reports

A written evaluation of each child's progress in various developmental and skill areas is compiled at the end of the program year. This document is transmitted to both the receiving teacher and the child's parents to facilitate carry-over of the program in both school and home. The report compares skills and abilities when the child entered the program with those acquired by year-end in 6 areas of development. Individual student Developmental Profiles reflect changes in rate of development. Areas needing improvement are also outlined, together with suggested activities to be carried out in the home or school setting.

● Summary Data by Classroom

In addition to individual pupil data, the Project collects summary data by classroom in the following areas: percent accomplishment of behavioral objectives attempted; number of lesson concepts learned; and number of learning tasks in which child achieved criteria. Partial outcome data from the 1971-72 Evaluation

report indicates that of the 804 specific behavioral objectives attempted in the four classrooms, 550 or 68.4% were accomplished. The number of lesson concepts learned in 7 developmental areas totaled 7766, while the 38 children enrolled achieved criteria in 18,509 learning tasks taught.

- Pre- and Post-Test Results

Children in the Project are also pre- and post-tested using standardized instruments including the Frostig Developmental Test of Visual Perception, the Cooperative Preschool Inventory, and the Peabody Picture Vocabulary Test. For the 1971-72 one year period, scores on the Visual Perception Test ranged from no gains to four years' gain with a mean of 12 months for all children pre- and post-tested. Peabody Test results over an eight month time frame ranged from minus four months to 16 months with a mean of plus eight months.

#### Parent Program

Parents participate in informal evaluations of Project activities through two questionnaires calling for parental opinions of various aspects of the program. Effectiveness of the parent program itself is also assessed through pre-post questionnaires and home interviews.

- Parental Feedback on Program Operations

In order to provide parents with the services they need, all parents are asked to fill out a Parental Service Priority Scale (PSP) weighting the importance of services available such as counseling, transportation, home activities and so forth. Service priorities are periodically reassessed to determine shifts for both individuals and the group and to assess whether or not the program is meeting expressed needs. For example, after providing information on community mental health services, does that priority lessen? An "Inventory for Parent Evaluation" is also used to provide direct feedback to staff in an effort to strengthen and improve services. This questionnaire calls for 43 yes/no responses about satisfaction with the Project's operations including communications with parents, helpfulness of home programs, staff availability, and the like.

- Assessment of Parent Program Effectiveness

An important objective of the program is to develop in parents a more realistic assessment of their child's development strengths and weaknesses. To evaluate program



effectiveness, parents are requested to complete a Parental Priority for Developmental Growth Scale. A pre-test comparison of this scale is made with the child's actual developmental profile and the teacher's developmental growth priority scale. Those parents whose PPDG is widely discrepant with test data and the teacher profile are candidates for additional help. Parents and teachers are retested after a series of activities (discussions, workshops, home programs) directed toward achieving congruence with each other and tested developmental levels. Changes in parental attitude are also measured using a pre-post Parent Attitude Scale together with home visit interviews and observation. Figure 4 is a sample of 1971-72 pre-post ratings taken by independent raters on several parent attitudinal dimensions.

Figure 4. Sample Pre-Post Ratings Taken On Several Parent Attitudes

	Pre	Post
Parents encourage child's over-dependence	9	1
Parent actively rejects child	0	0
Inconsistent discipline	13	5
Harsh discipline	2	1
Favors child over siblings	3	0
Family overly centered around child	11	3
Poor limits set for child	17	4
Lacks confidence in child rearing skills	6	4
Has unrealistically low goals and expectations for the child	2	1
Has unrealistically high goals and expectations for the child	9	5
Anxious regarding preschool placement for next year	6	19
Denies to some extent the severity of child's problem	13	7
Parents appear together in their approach with the child	4	2

Parental use of home activity sheets is considered another indicator of parent program effectiveness. Data for 1971-72 report that all parents interviewed consistently received the activity sheets and found them applicable in the home situation. Ninety-six percent indicated that the activities were helpful. Seventy-seven percent of the families "always" or "often" followed-up on the suggestions. Frequency of use data indicate that 35% of the parents or siblings implemented the activity suggestions on a daily basis, while an additional 55% of the families used the activities at least 2-3 times per week.



### Workshop and Outreach Efforts

Pre- and post-tests are administered to all workshop participants during each two-day session to measure knowledge of course content. Results are tabulated at the end of each series to provide immediate feedback to staff for subsequent workshops, leading as required to a restructuring of emphases. Results from the first workshop series, as presented in the November 1972 progress report, indicate that all participants (100%) improved their scores on the post-test. Mean score for the pre-test was 30% correct, while mean score for the post-test was 90% correct.

In order to evaluate reaction to training sessions, participants are also asked to complete workshop evaluation forms rating each topic presented in the training sequences. On a five point scale where 1=excellent and 5=poor, 96% of the 166 participants in the first four 2-day courses gave ratings of 3 or higher to all topics covered. Fifty-four percent gave ratings of 2 or higher to all topics.

Outreach staff have also collected follow-up workshop evaluation data for those training sessions conducted during 1971-72. Trainees were asked to indicate whether techniques and materials presented in the workshops had been used successfully in their home setting. Figure 5 displays a random sample of responses.

Figure 5. Follow-Up Workshop Evaluation

	YES	NO	SUCCESSFULLY	UNSUCCESSFULLY
1. Have used behavior modification.	72	6	69	3
2. Have used the Learning Achievement Profile.	52	26	42	1
3. Have used a task analytic approach.	57	23	47	0
4. Have used a behavioral objectives approach.	71	12	55	1
5. Have used the Curriculum Guide.	55	15	47	5
6. Have developed new instructional materials.	55	18	45	0
7. Have used the instructional materials presented.	62	14	50	1
8. Have added or eliminated instructional materials.	54	19	35	2
9. Have altered or restructured schedule.	49	18	38	0

Since the workshops address the needs of a wide range of people with different backgrounds and job positions (some trainees are barely literate while others are administrative personnel), a study is underway to perform a correlation of data between helpfulness of the workshops and previous education and experience of participants. On-site follow-up is also planned to measure impact of the training workshops on programs served. Staff will attempt not only to verify who is using what methods and materials presented in the workshops, but to develop an instrument to measure changes in children, changes in program operation and structure, and changes in teacher content knowledge as a result of the credit workshops.

PART SIX:

FURTHER INFORMATION

FOR FURTHER INFORMATION

For further information about the Chapel Hill Training/Outreach Project, contact:

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MATERIALS AVAILABLE

The following materials are available upon request from the Chapel Hill Training/Outreach Project:

Learning Accomplishment Profile (LAP)  
Curriculum Guide  
Manual for Instructional Planning  
Microteaching Evaluation Form  
Working with Parents - A Positive Approach

THE MAGNOLIA PRESCHOOL PROGRAM

MAGNOLIA, ARKANSAS

*A model program serving 30 five-year-old handicapped children with a philosophy of early intervention and integration into regular classroom settings.*

December, 1972

Principal Authors:

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PART ONE:  
INTRODUCTION

OVERVIEW

Located in a predominantly rural area in southwestern Arkansas, the Magnolia Model Preschool Program for Handicapped Children maintains two classrooms designed specifically for 30 five-year old children with a variety of handicapping conditions including mental retardation, developmental retardation, speech and hearing problems, and emotional disturbances. The Magnolia project uses a diagnostic teaching approach with emphasis on individualized programming and behavior modification to prepare these students for entry into regular school programs. By intervening early in the life of the handicapped child, the Preschool is designed to enhance development in the areas of language and communication skills; perceptual and motor skills; social skills; and school readiness skills such as numbers, alphabet, matching, and listening.

Housed in a public school building, the Preschool operates in conjunction with five kindergarten classes for the non-handicapped. Because of the program's emphasis on integration of handicapped children into normal settings, some non-handicapped children are placed in the special kindergarten, and interaction between regular and special classrooms is encouraged.

Careful and realistic planning structured the program to fit its rural setting. Established as part of the Magnolia Public School system, children are accepted into the program from two counties encompassing 10 school districts. Using local staff, the program offers four services: an instructional program; special services; a parent involvement program; and staff training. Under a newly-acquired Bureau of Education for the Handicapped grant, the program also seeks to prepare public school teachers and administrators and day-care personnel to receive handicapped children in their classes.

### CONTEXT OF THE PROGRAM

In fall, 1969, the State of Arkansas funded eight pilot kindergarten projects, one of them in Magnolia, to be operated in conjunction with local colleges. At the same time, the Director of Education for Magnolia Public Schools and a team of consultants were planning a preschool program for handicapped children. With approval from Magnolia School District administrators, the Director of Education became the Preschool Director and began staff recruitment and training and an intensive case-finding effort. A former elementary school was given over to house both the pilot kindergarten and Preschool Program, with extensive remodeling and refurnishing to meet the needs of Preschool children.

By the fall of 1970, the Preschool Program was ready to admit three classes of children. One teacher was being prepared to assume the role of Assistant Director. During 1971-72, the Assistant Director assumed day-to-day administrative responsibilities for the classrooms and additional staff were hired to serve the 48 enrollees. With the fall of 1972 came a more solid joining of the handicapped program with the regular kindergarten classes and the beginning of the project's community teacher-training effort. The number of special classes for the handicapped was also reduced from three to two as students continued to be integrated into the kindergarten classes for the non-handicapped.

For its first two operational years, the handicapped kindergarten was supported by federal (SEH) funding. Since fall, 1972, however, the cost of this two-classroom program has been shared by the Magnolia Public Schools (42%) and an ESEA grant through the Arkansas Department of Education (58%) for a total budget of \$52,000. Outreach activities are funded at an additional \$54,000 by the U.S. Office of Education, Bureau of Education for the Handicapped.

PART TWO:  
PROGRAM OPERATIONS

INSTRUCTIONAL PROGRAM

Children are assigned to one of two self-contained classrooms for five hours a day on the basis of their special needs as well as sex and race. Results from the Illinois Test of Psycholinguistic Abilities and the Metropolitan Readiness Test may also be considered during placement. However, as the children's skills and abilities become known to the Teacher (usually by the end of October), a more flexible team-teaching approach is used and children begin to rotate between classes. One teacher is primarily responsible for language, auditory and music instruction, while the other handles motor, visual and math instruction. Much of the teaching is conducted in small groups or individually, with the Aide or a volunteer working with the remaining children.

A major problem Project staff have addressed is the need for curriculum materials suitable for the five-year-old handicapped child. Staff visited other projects serving young children and, with the aid of the U.S. Office of Education, conducted a thorough search of existing curriculum. Suitable materials were reviewed and tested in the program during 1971-72. One specific problem identified during the search was the lack of appropriate materials for the rural black child. Most black-oriented curriculum was geared to inner-city children whose experiences are foreign to the rural Arkansas preschooler.

During the summer of 1972, the Director, Assistant Director and three Teachers put together a set of Curriculum Guidelines for handicapped children, using the tested materials and new materials they had developed to complete the package. The final unit consists of curriculum activities in 10 areas: art, auditory perception, health, language development, mathematics, movement skills, music and rhythm, science, social studies, and visual perception. Suggestions for activities in each area are offered as well as lists of prepared or commercial curricula available for each subject.



At present the Curriculum Guidelines are working drafts. Space for additions, deletions, and revisions in activities is provided after each section. As staff use the book they are expected to revise it continually. In January 1973 staff began revising the book and will work through the summer to make it useful for other programs serving the preschool handicapped.

## SPECIAL SERVICES

### Speech Therapy and Language Development

Speech therapy and language development services are provided to the project through the public schools by a part-time Speech Therapist. Currently there are 14 children in the program using this service. Instruction is on an individual and small-group basis for a minimum of 10 to 20 minutes three times a week. The Therapist uses the McDonald Articulation Test to assess children's language when they enter the program and to chart progress throughout the year. The children's most common speech problems are articulation, fluency, or delayed speech. Because the public schools do not provide speech therapy for children, the Therapist has begun teaching first- and second-grade teachers basic principles and exercises for speech therapy and language development so they can further develop good communication skills when children leave the Project.

### Health

Health services are provided by a Registered Nurse who serves both the Preschool and kindergarten programs on a half-time basis. The Nurse is most involved during enrollment, although she provides ongoing medical supervision and emergency care. With the help of the Assistant Director and the Social Worker, the Nurse attempts to establish a complete medical record and history for each child entering the program. After enrollment, each child is screened for vision, hearing, and heart problems as well as general health condition.

One of the major areas of concern to the Nurse is the children's immunization history. Frequently, children are found to be lacking all recommended immunization and inoculations. When further immunization is needed, the child is referred to his own doctor or to the county health office. Once a year, the Nurse

attends a parent group meeting to explain medical forms and records and answer any parent questions.

A Home Economist is employed by the school district and available to the Project one morning a week to plan and supervise the school lunch program. In addition, she plans the Project's snacks, which are designed to teach children about the basic food groups. Once a year, she presents a parent group program on nutrition and food groups. In the past, the Home Economist worked half-time and helped develop a nutritional curriculum for use throughout the public school system. Now that teachers have been trained in this curriculum, her involvement is less direct.

#### Social Work

The Social Worker and the Assistant Director gather information from each family in the fall for both a regular school record and a confidential file on each child. The Social Worker is required to compile data on children and parents for each monthly monitoring report. Throughout the year, the Social Worker acts as a liaison between family and school and transmits messages, locates parents, and generally keeps the information channels between home and school open. She is often called upon to counsel families on matters relating directly or indirectly to their preschool child, and she discusses child placement possibilities for the coming year. Meetings with parents take place both in the home and at school.

The Social Worker maintains a close relationship with local health and welfare departments. When a Project family is receiving Aid for Dependent Children, the Social Worker may work with the Welfare Worker if the family approves. Many other community agencies are in touch with the Social Worker and she refers families to these resources when necessary.

#### OUTREACH TEACHER TRAINING

A BEH grant awarded to the Model Preschool Program for 1972-73 has enabled the Project to expand and improve training activities already underway. This effort currently focuses on the needs of receiving teachers--those responsible for the

continuing education of the preschooler once he has left the Project. The Project's evaluation findings revealed that these teachers were generally unprepared to cope effectively with handicapped children. Since Project children may enter regular elementary classes or special-education classes now starting up in four of the 10 school districts as well as regular day-care programs, the following groups have been identified for training:

- 35 first-grade teachers and/or elementary special education teachers employed in seven of the 10 school districts.
- 10 administrators, principals and/or superintendents from the 10 school districts.
- 60 community day-care personnel with a variety of educational backgrounds.

To accomplish its goal of facilitating the handicapped child's integration into normal settings, the Project has set three outreach training objectives for 1972-73. These objectives require that a teacher become oriented to the special needs of handicapped children and require teaching techniques effective and appropriate for working with the handicapped student.

The training effort, primarily conducted by the Project Director, Assistant Director, the Social Worker and program consultants, includes individual conferences; on-site technical assistance in day-care programs or public schools; demonstration of teaching techniques, use of curriculum materials and behavior management techniques in both workshop and classroom; classroom observation and follow-up discussion at both the Preschool and other programs.

PART THREE:  
NOTABLE FEATURES

STAFF RECRUITMENT AND TRAINING

Recruitment

Although the program could have sought out qualified special-education teachers (reportedly scarce in Arkansas) and attempted to lure them to the small town of Magnolia, the Director and planning consultants felt that outsiders were unlikely to settle permanently in the area. Moreover, salaries would be based on the Magnolia Public Schools' teacher salary scale--a measure taken in order to eliminate jealousy and facilitate the transfer of program support from federal to local educational agencies. The Project opted for local people who intended to stay in the area. Lack of experience could be compensated for with supplementary training. In 1970, the program hired three full-time teachers previously employed by the Magnolia Public Schools as teachers in non-handicapped classes and six classroom Aides (four full-time and two part-time) who generally had little or no relevant experience, although some part-time Aides were enrolled in job-related college courses.

Development of Training

To enhance staff abilities to deal effectively with their handicapped preschool students, the Preschool offers both pre- and in-service training each year. Content and activities for this training were originally developed by the Director and the consultants who helped plan the program. As additional professional staff have been hired, they too have played a role in developing the training program.

Specific training activities vary from year to year, depending on need. Teachers' educational weaknesses or lack of experience and specific student needs generally dictate training objectives. For example, when the program started, the Teachers had experience in elementary-level teaching, but most had not worked with handicapped or preschool youngsters, so training focused on teaching five-year-olds with special needs. In another case, the enrollment of a cerebral palsied student prompted a trip for Teachers and Aides to the United Cerebral Palsy School of Denver, Colorado.

### Pre-Service Training

Pre-service training occupies several rigorous sessions held before school opens in the fall, under the leadership of the Director, Assistant Director and other professional staff, with assistance from experienced program Teachers. Sessions are first held separately with Teachers and Aides, and later with the total group. Aide training includes child-care activities, preparation and assistance with materials, operation of equipment and assistance in teacher-directed activities. Teacher training focuses on diagnostic teaching and behavior modification techniques, individualized prescriptive curriculum, and testing/evaluation methods. Outside consultants are brought in as needed.

### In-Service Training

In addition to any college courses in which a Teacher may be enrolled, the Pre-school provides these in-service training opportunities:

- Attendance at Professional Workshops and Conferences

The Director and, when possible, the Assistant Director, travel to numerous conferences and workshops (a regional food service seminar, an evaluation workshop, and meetings sponsored by such organizations as the National Association for Retarded Children and the Arkansas Education Association). Other professional staff also attend early childhood education conferences and special meetings geared to their interest areas, while the entire staff, including Aides, attend similar regional events several times each year.

- Visits to Other Programs

Staff visit other programs serving children with special needs, including a nearby school for the blind (prompted by the enrollment of a blind child in the Preschool) and the Child Study Center at the University of Arkansas which provides services for children with learning disabilities and behavior problems.

- Presentations by Consultants

Frequent consultant visits to the Project are scheduled throughout the year to give staff training in language development, learning and emotional problems, speech therapy, and other specialized areas. Visits are usually arranged to

correspond with specific staff training needs. For example, one student required physical therapy, but frequent visits to a therapist could not be arranged. A consultant was brought in to prescribe therapy for the child at the school and to train an Aide to oversee the therapy exercises.

- Weekly Staff Meetings

Perhaps the most important part of the in-service training program are the weekly staff meetings conducted separately for Aides and professional staff. The Assistant Director and other staff lead the Aides in discussions of teaching methods and techniques. All professionals, including the Evaluators and occasionally other consultants, participate in weekly "staffing" meetings to systematically review individual children's cases. The staffing includes the identification of a specific problem, formulation of a diagnosis, and the design of a course of action to alleviate the problem. The conclusions reached at the end of a staffing together with recommended treatment strategies are recorded on a staff-designed form. These sessions serve as a rich training experience for the development of analytic and child development skills, and creativity in management and instructional skills.

- College Courses

A final source of training available to staff is course work at the local Southern State College. The Preschool Director has taken advantage of Title VI monies to provide tuition for Teachers needing extra credits for certification in special education. Typically, once a Teacher has been hired by the Project and her course work needs are identified, the Director submits a grant application to the Magnolia Public Schools. Two slots per year have customarily been awarded to the Preschool in college kindergarten training programs.

PART FOUR:  
PEOPLE IN THE PROGRAM

STUDENTS

Student Demographics

Of the 30 children currently enrolled in the Preschool, 2 are educably mentally retarded, 9 are emotionally disturbed, 4 have language handicaps, 12 are developmentally retarded, and 3 are non-handicapped. During the first operational year, however, about two-thirds of the children suffered from speech or hearing handicaps. The following year brought a significant increase in the number of emotionally disturbed children in the program. Interestingly, on several occasions a "non-handicapped" child enrolled in the Preschool has been found to have a handicap.

Approximately two-thirds of the children currently enrolled are boys. One-third of the children are black and two-thirds are white. Children are assigned to one of the two classrooms on the basis of race and sex, in order to maintain a balance between classes.

Recruitment

While the program was in the planning stage, an extensive case-finding effort was carried out by the Parent Coordinator to locate handicapped children in the community. There were two major problems in locating students. First, the community was unaccustomed to the idea of five-year-olds attending school, and little was known about the number and location of children eligible for the Project, since this age group was not included in the school census. Second, the social stigma surrounding handicapped children caused many people to be pessimistic about early education for them. Consequently, even if a child were eligible for the program, he or she might not be referred. Because few children were being referred through traditional sources such as welfare agencies and private physicians, the Parent Coordinator used "the radio and the road" to find children. Radio broadcasts and newspaper articles described

the program and the type of children sought, always avoiding the term "handicapped." In addition, the Parent Coordinator traveled the two-county area talking to neighborhood residents and mail carriers and frequenting general stores. These methods finally succeeded in turning up a large number of handicapped individuals, many of whom were far too old or too severely handicapped to be admitted to the Project. However, 147 children were tested and their parents interviewed, with a total of 45 enrolled in the new program.

Since that first year, major case-finding has not been necessary. Beginning in February, parents can submit a child's name for the following year. The Assistant Director and the Social Worker screen applicants both before and after they have been given a variety of tests by a Project staff member.

#### Selection

To be enrolled in one of the two classes which primarily serve handicapped children, a child may reside in any one of the 10 school districts in the two-county area. Only residents of the Magnolia School District may enroll in the five regular kindergarten classes. Because of these geographic requirements, non-handicapped children from outside the Magnolia School District sometimes enroll in the two special classes as "pattern" children--a name given by the program to non-handicapped children who are integrated into special classes and function as models for development. Currently, two-thirds of the children enrolled in the special classes are residents of the Magnolia District; the other third includes residents of five other school districts.

Children must be five years old on or before October 1 of the fall in which they are admitted to the Preschool. Generally, children leave the program after one year; a few have stayed up to three years when no other appropriate placement was available and the child was still able to benefit from the program.

A third criterion for admission (except for pattern children) is that the child be either educable mentally retarded, seriously emotionally disturbed, speech or hearing impaired, or developmentally retarded.



### Student Placement and Follow-Up

In the spring of each year, staff make recommendations to parents (which are almost always followed) for each child's placement in the coming fall. Placement recommendations made in the spring of 1972 were:

- 7 children to remain in the Preschool program
- 1 child to a state institution
- 6 children to special-education learning disabilities class
- 2 children to special-education EMR class
- 32 children to regular first-grade class

Magnolia Public Schools have two special-education classes for first graders, for EMR and learning disabled children. Three other school districts have at least one special first-grade class. As part of its training grant effort, the Project has been encouraging school districts to establish special-education classes and has been involved in training teachers who receive Project children in their classrooms.

All Project children who continue in the Magnolia Public Schools are followed up by the program through the third grade. Each child is tested using a pre- and post-test design with the same instruments used in the Preschool program.

### STAFF

When the Project was funded, the Director of the Preschool was already in a position of authority as Director of Education in the Magnolia Public School system. This dual position provided critical linkages with the schools and the community from the outset. Her role as Director was purposely designed to be most substantial during start-up. During the first operational year, she trained a Teacher as Assistant Director to oversee and direct the program's day-to-day operations.

Project staff also include one full-time Teacher and Aide for each classroom of 15 children and two part-time Aides from Southern State College in Magnolia who operate audio-visual equipment and work with children in the classroom as

necessary. The program also employs two consultants as Evaluators. (See Part Five, Program Evaluation.)

Several support personnel are also available part-time, including the half-time services of a Nurse, a Parent Coordinator and a Social Worker, who also work throughout the school system. A Speech Therapist is employed for 15 hours a week to provide specialized help for children with speech problems, and a Home Economist is also available on a limited basis.

All staff, except the Evaluators, are employees of the public school system and subject to its employment regulations. Teachers and Aides are employed on a 9-1/2 month basis, while other staff work a 12-month year.

#### Volunteers

The Preschool program readily accepts volunteers because they allow for more individual and small-group work with the children and help create a public image for the program in surrounding communities. The Junior Charity League is most extensively involved in the Preschool, although some parents, college students and individual community members also donate their services. Each volunteer is given the choice of working with children or creating materials. All volunteers are oriented to the program before they actually begin to work. Staff instruct them on some of the problems of individual children and acquaint them with the program's policies.

#### PARENTS

Approximately two-thirds of Project families are two-parent families, with between one-third and a half of the mothers working outside the home. Roughly half of the heads of household are unskilled laborers. Educational and income levels, however, vary widely among parents and are representative of the communities served by the program.

The Social Worker and the Parent Coordinator are primarily responsible for contact with Project parents. The Social Worker works individually with

parents in the home and school, particularly when a problem exists or when special services or referrals are needed, while the Parent Coordinator is in charge of overall parent relations, and often meets with parents as a group. The Parent Coordinator is particularly active during recruitment and admission of the children, and in introducing parents to the program.

Private parent/Teacher conferences are held at least twice a year to discuss each child's status, behavior, future educational plans, or any questions or concerns parents may have. Staff members also encourage parents to bring problems to the attention of the Social Worker, Assistant Director, or the Teacher as they occur.

Parents are encouraged to visit the school, and to occasionally have lunch with children and staff. Often parents see the Teachers and other staff casually as they bring their children to class. In addition, an open house held in the fall gives parents and other community members a chance to get acquainted with each other and the staff. Some parents volunteer to work in the classroom, while others help by collecting or making materials for classroom use. Monthly parent meetings are scheduled in three sessions--8:00 a.m., 1:00 p.m., and 7:30 p.m.--so any parent can attend, no matter what his or her schedule. Staff have found slide presentations of classroom activities, accompanied by sound cassettes, particularly useful in presenting the Project at these meetings. Parents' opinions of their children's progress are also solicited by the program on a feedback questionnaire (see Part Five, Program Evaluation).

#### COMMUNITY

The two-county area served by the Project is located in the southwest corner of Arkansas and has a population of roughly 37,430, of which between 35 and 40% is black. Nearly one-third of the families in the two counties fall below the federal poverty guideline.

Project staff have worked hard to achieve acceptance, support and understanding for the program from the community. Community groups have been helpful in getting the program started and maintaining a high level of community support.

During the case-finding effort, many community members helped staff locate children with problems. At present, five volunteer guides from the Junior Charity League are being trained to escort visitors on guided tours of the program and to make use of a Project slide presentation. Southern State College in Magnolia has provided an abundant source of trainees, aides, consultants and teacher trainers for the program. A number of community agencies, including the health and welfare departments, cooperate with the Social Worker to extend services to Project families.

One important group with an input into the programming and planning of the Pre-school is the Advisory Committee. During the planning phase, this group consisted of the consultant team--program operators and professionals in the field of education. It is now composed of parents, pediatricians, representatives from Southern State College and from the local Association for Retarded Children, as well as representatives of a variety of local organizations which deal with children. This group serves in a public relations as well as an advisory capacity.

PART FIVE:  
PROGRAM EVALUATION

EVALUATION DESIGN

The evaluation design, developed jointly by program staff and two external Evaluators, reflects the Project's need for a practical, useful evaluation model. Although it does not include sophisticated and long-range analyses, it does permit continuing assessment of program operations, useful and comprehensible feedback to staff, and timely documentation of need for change. The flexible design, which includes both process (monitoring) evaluation and product evaluation, allows for internal revisions and can be adapted for use by other programs. The Project uses standard test instruments and staff-developed forms to carry out specific evaluation objectives. Evaluation of the Preschool Program is carried out by one of the Evaluators while the second Evaluator maintains responsibility for the outreach teacher training component.

All professional staff are required to submit monthly reports as part of the monitoring evaluation. The Evaluator prepares three written reports:

- A fall evaluation plan describing the program in full and defining performance objectives for the year.
- A mid-year monitoring report noting progress, problems, and changes to date.
- A year-end summary report presenting data gathered, evaluation results and conclusions, and recommendations.

These reports are based on pre- and post-test results, staff reports, and summary statistics prepared by the Social Worker on both students and families. In addition, the Evaluator makes at least biweekly visits to the Preschool and meets with the staff.

Product Evaluation

Product or summative evaluation measures the degree to which specific performance objectives established each fall have been achieved by the end of the program year. Each objective is stated to answer these questions: who will

perform the desired behavior? What is the performance? Under what conditions will the performance be measured? How will the performance be measured? What will be acceptable criteria for the performance? Instruments used are:

- Pre- and Post-Tests

To evaluate the program's effectiveness with respect to student achievement, three pre- and post-tests are administered in the fall and spring, including the Illinois Test of Psycholinguistic Abilities and the Metropolitan Readiness Test. A social skills scale devised by the Project is also used by Teachers and Aides to pre- and post-test each child. The scale consists of 10 social-skill items with four rating categories ranging from "almost always" to "never."

- Parent Questionnaire

To measure parent reaction to the Preschool Project, staff have developed a feedback questionnaire to be completed by parents at the beginning and end of the school year. The questionnaire includes the 10 social-skill areas mentioned above and is intended to chart parental perception of their children's progress. This questionnaire also solicits parent opinions and attitudes toward the Preschool.

- Staff Questionnaire

Staff are also asked to evaluate the program's effectiveness by responding to a staff-designed questionnaire completed after 30 weeks of participation in the program. A different questionnaire is completed by Teachers, non-teaching professional staff and Aides. The questionnaire includes 10 statements about the program and/or a specific job role with a range of possible responses or reactions to the statement.

### Monitoring

The process evaluation or ongoing monitoring has been developed to identify operational problems, to determine reasons for and effects of any changes in planned program activities, and to determine if the program is progressing on schedule. Chief monitoring duties are performed by all professional staff, who each prepare monthly reports. Classroom visits by the Director and/or the

Evaluator also yield monitoring data. Monitoring data in written monthly reports include descriptions of institutional variables such as attendance, change in enrollment, or changes in staff assignments with supporting justification. Monitoring data also include information on instructional variables: teachers in each classroom would typically report new materials introduced and their use, changes in existing materials use, revised schedules, or new methods for handling the children.

To measure program effectiveness, the Project also uses detailed information on other operations, including the number and type of contacts with parents and staff participation in local, regional, and national conferences and workshops. Special forms have been developed for this purpose.

#### Individual Pupil Assessment

In addition to the process and product evaluation of program effectiveness, the evaluation design also calls for the diagnosis of individual pupil strengths and weaknesses and monitoring of individual pupil progress.

- Individual Pupil Strengths and Weaknesses

Collected before or immediately after a student is enrolled, data include results from the Stanford-Binet Intelligence Scale, the Metropolitan Readiness Tests and the Illinois Test of Psycholinguistic Abilities. The Frostig or motor skill and language development tests may also be used. The test data, together with a developmental history gathered from parents, physicians and agencies, can be used to draw a profile of strengths and weaknesses. All data are stored in a central records section and are updated annually. A summary of the profile is also kept in the student's classroom folder for reference. These cumulative data are useful in determining placement when a child leaves the program. The record follows the student throughout his public school career.

- Individual Pupil Progress

Because the Project uses a diagnostic/prescriptive teaching approach, each child has a prescribed program developed in weekly staffing meetings. Specific prescription or developmental tasks are formulated for a child with new prescriptions introduced once the previous task has been mastered. All child

progress data are recorded continuously by the Teacher on the Prescribed Program form (see Figure 1 on the next page) and are maintained in the student's cumulative classroom folder.

#### USES OF EVALUATION DATA

Both process and product data are used primarily as internal mechanisms for accountability and identifying needed change. Pre- and post-test data are used to evaluate individual and group progress (occasionally comparisons are conducted by classroom). Data gathered for monitoring purposes provide a thorough record of events in the program's history and documentation of problems, changes, reasons for change and results obtained.

As a result of the program's evaluation, several changes have been implemented in the program and the evaluation process itself, although the basic evaluation format remains the same. Tests used to diagnose and evaluate student performance have changed since the first year of operation. For example, the Vineland Social Maturity Test results showed no significant gains after two years' use, and although still given, this scale has been replaced as a post-test by a staff-designed Social Skills Rating Scale. The Stanford-Binet Intelligence Scale, originally scheduled for pre- and post-test use, is now given only at the time of enrollment. In addition, the Aides' uncertainty about their roles was flagged in the staff feedback questionnaire, while test results revealing students' weaknesses stimulated Teachers to adjust classroom emphasis and activities to meet those needs.

#### Capsule Summary of Evaluation Findings

Summary Evaluation Design charts and results (Figure 2) are included at the end of this section. For the first operational year (1970-71), no level of expectation was set; therefore, the generally positive test and feedback questionnaire results were considered an indication of the program's success. Findings for the second operational year indicate that while children's progress was generally positive, the difference between pre- and post-test scores was not always statistically significant. The Evaluators expressed some problems with rising



Figure 1. Prescribed Program Form

Model Preschool Program for Handicapped Children  
 Magnolia School District  
 Magnolia, Arkansas 71753

PREScribed PROGRAM

NAME _____		TEACHER _____			
DATE OF PRESCRIPTION	AREA	MATERIAL	SEQUENCE OF TASK	DATE OF MASTERY	OBSERVATION AND COMMENTS

1-12-72  
 PS-24

statistical means in such a small sample, so student scores were also examined individually. One conclusion states:

"Based on post-test data, a high percentage of the students made significant cognitive gains in both basic skills and social skills, with indication that the least gain was made in word meaning and listening as indicated by scores on the Metropolitan Readiness Test and auditory reception, visual reception and visual sequential memory as recorded on the pre- and post-test of the Illinois Test of Psycholinguistic Abilities (ITPA)."

Figure 2. Evaluation Design Summary Chart

EVALUATION DESIGN SUMMARY CHART						
PRODUCT PERFORMANCE OBJECTIVES	MEASUREMENT INSTRUMENTS		DATA COLLECTION PROCEDURES			EVALUATION RESULTS
	Name/Type of Instrument	Date Instrument to be Completed	Baseline Data	Target Group	Scheduled Date(s)	Person Responsible
1. After 24 weeks of participation in the Model Pre-school Program, the students will improve in their Developmental Skills as indicated on Pre and Post Scores of the Illinois Test of Psycholinguistic Abilities. The minimum mean level of expectancy will be one month gain per one month of participation.	Illinois Test of Psycholinguistic Abilities	Standardized	-Auditory Reception -Visual Reception -Visual Memory -Auditory Association -Auditory Memory -Visual Association -Visual Closure -Verbal Expression -Grammatical Closure -Normal Expression -Auditory Closure -Sound Blending	48 Students enrolled	Pretest 9-15-71 Post Test 5-15-72	Speech Therapist
2. After 24 weeks of participation in the Model Pre-school Program, the students will improve their school Readiness Skills as indicated on Pre and Post Scores of the Metropolitan Readiness Test. The minimum level of expectancy will be a mean gain significant at .05 level of confidence.	Metropolitan Readiness Test	Standardized	-Word Meaning -Listening -Matching -Alphabet -Numbers -Total	48 five-year-old students enrolled	Pretest 9-13-71 Post Test 5-15-72	Assistant Director
						<p>A comparison of overall test results indicated that the mean gain in months exceeded the level of expectancy in all areas except <u>Visual Reception</u>.</p> <p>Individual Pre and Post Scores on ITPA will be compared to determine the number of students who exceeded the minimum level of expectancy.</p> <p>A comparison of mean pre and post test scores will be made to determine if the minimum level of expectancy was achieved. Standard Statistical analysis will be used to test the significance of difference in mean scores. Individual scores on each sub-test will be analyzed to determine how each individual performed in relation to the minimum level of expectancy.</p> <p>A comparison of overall test results indicated that children made statistically significant gains in all areas except <u>Word Meaning</u> and <u>Listening</u>.</p>

EVALUATION DESIGN SUMMARY CHART

PRODUCT PERFORMANCE OBJECTIVES	MEASUREMENT INSTRUMENTS		DATA COLLECTION PROCEDURES			EVALUATION RESULTS
	Name/Type of Instrument	Date Instrument to be Completed	Baseline Data	Target Group	Scheduled Date(s)	Person Responsible
4. After 30 weeks of participation in the Model Pre-school Program, the parents will respond positively to the program as measured by a Staff-Home Feedback Questionnaire. The minimum level of expectancy will be 90% responding positively to all items.	Staff-Home Feedback Questionnaire	Already Completed	----	Parents of 48 students participating	Post Test 5-15-72	Social Worker
5. After 30 weeks of participation in the program, the staff will respond positively to the program as indicated by a Staff-Home Feedback Questionnaire. The minimum level of expectancy will be 90% responding to all items.	Staff-Home Feedback Questionnaire	Already Completed	----	Teachers, Aides Administration Staff	Post Test 5-15-72	Director

An analysis of questionnaire results indicated an overall increase in positive responses

A review of responses indicated that the overall response of teachers, aides, and non-teaching personnel was positive.

The positive and negative responses from the questionnaire will be analyzed and compared with the expected level of 90% positive response to each item.

The responses will be analyzed and compared to the expected level of 90% positive responses to each item.

## EVALUATION DESIGN SUMMARY CHART

PRODUCT PERFORMANCE OBJECTIVES	MEASUREMENT INSTRUMENTS		DATA COLLECTION PROCEDURES			DATA ANALYSIS TECHNIQUES	EVALUATION RESULTS
	Name/Type of Instrument	Date Instrument to be Completed	Baseline Data	Target Group	Scheduled Date(s)		
3. After 24 weeks of participation in the Model Pre-school Program the students will improve their Social Skills as measured by the Vineland Social Maturity Scale and a Staff-Made Social Skills Scale.  The minimum level of expectancy will be:  -Vineland - one month growth for each month of participation.  -Social Skills Scale - 20% gain in the "Almost Always" category.	Vineland Social Maturity Scale	Standardized	Social Age	48 five-year-old students enrolled	Pretest 9-15-71 Post Test 5-15-72	Social Worker	A comparison of Pre and Post Mean Test Scores will be made.
	Staff-made Social Skills Scale	Already Completed	Scores and Social Behavior rated by teachers, aides, and parents from Always to Never on a four point scale.	48 five-year-old students enrolled	Pretest 9-15-71 Post Test 5-15-72	Assistant Director and Social Worker	A comparison of pre and post test percentage scores will be made.

PART SIX:  
RECOMMENDATIONS AND FURTHER INFORMATION

RECOMMENDATIONS FOR REPLICATION

Programs starting up in rural and small-town settings should review those aspects of the Preschool Project in Magnolia which were specifically tailored to the rural area. Unavoidable transportation problems and frequently prohibitive costs reflect the Project's rural nature, perhaps more than any other aspect. Secondly, the first year case finding effort underscores the large service area covered and the physical and attitudinal isolation in which many families live. The Project's success in locating potential clients was due in part to the fact that the effort was coordinated by a local person thoroughly familiar with the region and its people. Successful operation of the program is also contingent upon the resources available within the community, including both staff and support services. Finally, the sparsely settled rural environment dictated the need for cooperative efforts among 10 school districts to keep the program going.

The 1972 Evaluation Summary also presented several implications that may be of interest to other programs:

- The program was initiated by the school staff and operated as an integral part of the program, rather than as a separate process.
- The program was evaluated by an external Evaluator utilizing a practical scheme of evaluation and monitoring.
- The involvement of parents, community personnel and outside consultants was a strength from the beginning.

FOR FURTHER INFORMATION

For further information about the Magnolia Preschool Program contact:

Louise Phillips  
P.O. Box 428  
Magnolia, Arkansas 71753  
(501) 234-3511

### MATERIALS AVAILABLE

The following materials are available upon request from the Magnolia Preschool Handicapped Program:

Curriculum Guidelines for Preschool Handicapped Program -  
Magnolia Preschool Staff, 1972. Magnolia, Arkansas. Re-  
vision will be published in June 1973; \$2.00.

Nutrition Instruction and the School Lunch, K-3, 1972.  
Magnolia Preschool Staff. Magnolia, Arkansas; \$1.00.

Connelly, Katherine, Speech Helps for Parents and Teachers,  
1973. Magnolia, Arkansas. Magnolia School District; \$1.00.

THE MODEL PRESCHOOL PROGRAM

SEATTLE, WASHINGTON

*A training, research and service project  
for handicapped children from birth to 6  
years which uses behavior modification  
techniques to plan individualized programs  
for children with a variety of handicapping  
conditions.*

November 1972

Principal Authors:

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PART ONE:  
INTRODUCTION

OVERVIEW

Seattle's Model Preschool Program, affiliated with the University of Washington, is a training, research and service project for children from birth to 6 years with a wide range of handicaps. The project is attempting to demonstrate that with a behavior modification approach, any sound curriculum can be used to help handicapped children. The program indirectly serves more than 400 children through its field efforts, and directly serves 135 students in the following kinds of classes:

- Preschool A and B Program

Preschool A serves severely handicapped children with minimal and no social skills. These are children who have been considered impossible to manage, test, or diagnose and who have been unable to continue in the programs they were previously enrolled in. Preschool B combines less severely handicapped children with normal children who serve as models.

- Down's Syndrome Program

Providing infant, early and advanced classes for children with Down's Syndrome, this program is designed to enable trainable children to function independently in a non-institutional environment. Early intervention is seen as critical for the success of these children.

- Communication Preschool

This program helps children improve their communication and language skills. There are two classes, one for children with hearing impairments, the other for children with speech or language impairments. With the former type, staff use a diagnostic approach to determine whether an acoustically handicapped child will profit most from a verbal or verbal-manual program.

The Model Preschool Program's field efforts provide training, guidance, and consulting services to other projects serving handicapped children, particularly Head Start, public schools and day-care centers.

## CONTEXT OF THE PROGRAM

In 1962, people from the Washington Association for Retarded Children, the University of Washington, and various state agencies attended a hearing of the President's Panel on Mental Retardation in Washington, D.C. and emphasized the need for a center for handicapped children on the campus of the University of Washington. Their influence helped bring about a federal grant in 1964 which allowed the University to develop one of the first Child Development and Mental Retardation Centers (CDMRC) in the United States.

The University's Experimental Education Unit (EEU), which was to become the Center's applied research and development arm, had been operating a privately funded, multi-disciplinary Pilot School for Neurologically Impaired Children since 1960. EEU incorporated the Pilot School, changed the name to the Model Preschool Program for Down's Syndrome Children, and expanded the program to include research and training as well as direct services. By 1970, the program had expanded to include preschoolers with a wide variety of handicapping conditions.

The Model Preschool Program is directly responsible to the administration of the EEU, the Child Development and Mental Retardation Center, and the University of Washington's College of Education and Special Education Area Committee. The Program has negotiated a contract with the State Board of Education permitting Seattle schools to place children in the program at local school district cost and requiring the district to reintegrate the students after completion of the program.

The Model Preschool Program was funded for a total of \$223,270 for fiscal 1972, of which the federal share (primarily through the Office of Child Development and the Bureau of Education for the Handicapped) was 45%. The remaining 55% comes from state funds channeled through both the University and the school districts and from private university and individual donations and grants from special agencies.

PART TWO:  
PROGRAM OPERATIONS

Each of the program's preschool classes (except the Down's Infant class) meets for two hours daily. Teaching staff, under the direction of Instructional Coordinators, determine individual student behavioral objectives and, using developmental guidelines, design curriculum to meet these objectives. The use of behavior modification techniques is an important common feature among all the classrooms (see Part Three, Notable Features). Each classroom is equipped with an observation booth, video-recording equipment and microphones for monitoring activities.

THE PRESCHOOL PROGRAM FOR MULTI-HANDICAPPED CHILDREN

- Preschool A (Morning)

For severely handicapped children, most of whom lack even rudimentary social, language, and self-help behaviors, this program focuses on such basic skills as responding to one's name, manipulating play materials and equipment, complying at least minimally with adult suggestions and directions, making at least primitive initiating and responding sounds, and toilet training.

- Preschool A (Afternoon)

For children whose social, language and self-help skills are rudimentary, emphasis here is on increasing these capabilities for social use through pre-academic tasks, language work, and so on.

- Preschool B (Morning Only)

Combines less severely handicapped children with "normal" children. The spread of abilities in this class is wide: some 4- and 5-year-olds are performing at the second- and third-grade reading and math levels while others are just beginning to learn colors, shapes, spatial relationships and similar basic concepts. However, the average skill level is such that many kindergarten-type group activities are included.

### THE COMMUNICATION PRESCHOOL

Two classes, one for children with hearing impairments, one for those with communication disorders stemming from speech or language impairments, help children develop improved language and communication skills through individual and group techniques. These include reinforcement of effective communication behaviors and rearranging of classroom events to encourage frequent use of those behaviors. In addition, the program for hearing impaired uses a systematic measure of reoccurring behaviors to diagnostically determine whether the child will profit most from verbal or verbal-manual (lip reading and sign language) approaches. A communications specialist is available to each class for consultation and implementation of individual programs.

### THE DOWN'S SYNDROME PROGRAM

- Infant Learning Class

When the child is approximately five weeks old, mothers receive individualized training in normal sensorimotor development. During a weekly 30-minute session, the child's progress is assessed in terms of "normal" growth; specific areas of deficiency are noted and the mother sets weekly developmental goals to correct them. Exercises and developmental training procedures are demonstrated to the mother so she can use them at home.

- Early and Advanced Preschool Classes

These emphasize basic self-help and academic skills. The Advanced Preschool class attempts to maintain skills learned in the Early class and to increase language and motor development. Both Early and Advanced classes attempt to prepare children for kindergarten.

The following schedule for a Preschool A Afternoon class is typical of the program's other classes, except that activities are tailored to the specific needs of children with various handicaps:

12:30 - 1:00	Child initiated activities (emphasis on social, language and self-help skills).
1:00 - 1:15	Individual preacademic tasks.
1:15 - 1:30	Group preacademic games (Lotto, Distar Language, and Matrix Game).
1:30 - 1:50	Outdoor large-motor activities.
1:50 - 2:00	Puzzles.
2:00 - 2:15	Group time, snack, music and rhythms.

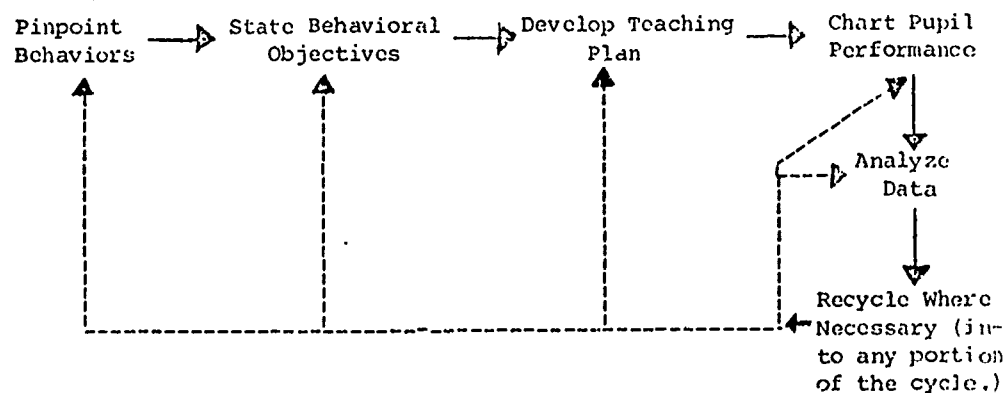
PART THREE:  
NOTABLE FEATURES

BEHAVIORAL DATA COLLECTION AND ASSESSMENT

One of the Preschool Program's goals is to demonstrate that a behavior modification approach to preschool education is not dependent on a specific curriculum. Staff feel that any sound curriculum, used in conjunction with behavior modification techniques, will ensure student learning. Instead of advocating the use of a particular curriculum, the program stresses the comprehensive measurement and assessment of behaviors so individual behavior modification programs can be accurately designed for each child.

Baseline data are recorded on children's behaviors by teachers, trainees and parents. These people are instructed in several techniques designed to document a child's daily activities and project changes which can influence classroom progress. The teachers, interns, and parents meet at the end of each day to discuss classroom activities and to formulate new objectives for each child as needed. The continual measurement of child progress makes it possible to base all decisions and teaching activities on baseline, observational, and hard data. Each technique for data collection--be it a simple count of behaviors within a time frame or a more sophisticated measure--is the basis for modifying curriculum and for continually redefining the range of abilities of the handicapped child. Of paramount importance in each data collection system is the fact that each behavior has been operationally defined, thereby minimizing the subjective interpretations of a particular observer.

The Preschool Program's data collection and student assessment procedures are represented in the following diagram, which also outlines the instructional system used by the project:



Data collection is designed to develop systematic, developmental behavioral assessment profiles on each child which can help teachers rate the child's responses on a continuum ranging from "no skill" to "superior skill" in a variety of areas. One instrument developed by the Preschool for this purpose is called the Comprehensive Developmental Preschool Profile. The type of data gathered for this instrument and the system for its collection depend on individual pupil needs, but combinations of the following procedures are used:

- Ten Minute Data

Data are recorded for ten minutes per day per child to obtain indices of gross motor activity, verbalization, manipulative activity, teacher response, and so on. These data are counted and charted for analysis.

- Concept Learning Data

During individual concept learning time, data are taken on the number of correct responses, errors, assisted responses, and so on for each child. Rate of correct responses over time is also calculated and charted.

- Screening and Evaluation

At least once a year each child is given the Denver Developmental Screening Test, Peabody Picture Vocabulary Test, and an Assessment of Children's Language Comprehension Test, depending on his abilities. A language sample is also taken and scored according to existing norms.

Another data collection technique used at the Preschool is the Running Record, which records narrative observations of a child's behavior including physical events (changes of play location or use of materials) and social events (behaviors of other adults and children who interact with the child). The narrative account is next translated into a three-column format which gives an impression of possible relationships among antecedent stimulus conditions, ongoing behavior of the child and consequent event. A number of observations in this format can provide the teacher with insights into the child's behaviors and the environmental events which may influence them. The Running Record can also be used to isolate behaviors which may need further analysis and modification. Once these have been identified, a data collection system which requires a minimum of writing can be devised so each instance of the particular behavior can be recorded. Whatever



the data system design, it is crucial to the program that each unit be subject to systematic investigation and evaluation, providing an effective transferable model for schools, institutions and home settings.

#### FIELD EFFORTS

The establishment of field programs evolved gradually and cooperatively as a number of agencies and programs serving handicapped children asked the Preschool for help. For instance, several members of the Preschool staff have been involved with Head Start since its inception. As Head Start programs got underway, the Seattle Head Start staff wanted assistance in working with retarded children. Administrators from Head Start and EEU got together and requested funds from the county Mental Health and Mental Retardation Board to establish a classroom in which two groups of retarded children would be served daily. Funds were granted and the EEU staff assumed responsibility for staff supervision and training. Once these classes commenced, however, it became apparent that some of the children were mildly rather than severely retarded. These children were admitted to the Model Preschool where corrective programs were developed for them. Thus, some of these children were able to enter regular classrooms when they became school age. Arrangements were made with the Seattle Public Schools for admitting the other children, who were not ready for regular educational experience, into special classes.

When Seattle Head Start staff encountered difficulty in managing students with behavioral problems, EEU staff agreed to establish a Behavior Management class (in Head Start facilities) to work with children with emotional and behavioral difficulties. The class would also be a demonstration classroom for training Head Start teachers in behavior management. EEU staff observed the children identified as having behavioral problems, and when possible, trained teachers to handle these youngsters in their own classrooms. Children with difficult and urgent problems were placed in the Behavior Management class. As these children overcame their problems, they were returned to their original Head Start classes.

Other field work requests came from Directors of Special Education in public school districts who were asked by parents to provide services for deaf-blind children. A program for deaf-blind children was set up in the Seattle Public Schools with consultant help from the EEU staff. A similar arrangement was made for services to multisensory handicapped children.

An additional field program has been established as a result of three years of summer training workshops and follow-up provided by the Preschool to the staff of Epton Day Care Centers throughout Washington. Epton Day Care Centers provide services for severely handicapped children in their home communities as an alternative to institutionalization. The Preschool staff is providing continued training and supervisory assistance to the Epton staff through on-site visits, follow-up workshops and telephone conferences. A day-care center has also been designed by the Pasco Public Schools, and is presently replicating many of the Preschool's procedures.

Directors and staff members from other projects have come to the Model Preschool for varying periods of time for training or to attend special conferences or workshops. Materials have been provided and much correspondence has been exchanged with the directors, staff and students working in these programs.

When the Preschool's consultant services are requested, the Preschool field staff representative finds out or helps the director define the philosophy and goals of his program; discusses with program staff how they are implementing their goals; observes the program's classrooms and demonstrates some of the Preschool's techniques. The second phase of this effort is a one-week summer workshop held at the Preschool for intensive training in systematic observation of children; use of checklist and other assessment instruments; determination of appropriate behavioral objectives; data collection; charting; making decisions based on data; individualizing instruction; and working with parents, community agencies, and community colleges. The Preschool has various areas designed for closed-circuit television, multi-media presentations and a "telectern."

This week's training is expanded and reinforced during the year in follow-up workshops held at the field site. Follow-up also includes telephone conferences and consultant services when needed. The field staff eventually try to minimize these needs in an attempt to move the program into independent management.

PART FOUR:  
PEOPLE IN THE PROGRAM

STUDENTS

Demographics

In 1971, a total of 135 students with neurological, emotional and orthopedic impairments were enrolled in the Model Preschool Program. In many cases, these children were ineligible for other community programs because of the severity of their handicaps. The following chart offers a more detailed account of the number and types of handicapped children served in the Experimental Education Unit. These classifications, however, are not regarded by staff as labels: they simply reflect the reason for referral. Most of the children served by the Unit have associated handicapping conditions.

<u>Handicap</u>	<u>Age 0 to 6</u>
Educable mentally retarded	42
Hard of Hearing	11
Deaf	5
Communicative Disorder	43
Emotionally Disturbed	12
Neurologically Impaired	7
Learning/Language Disability	
Orthopedically Impaired	1
"Normal Models"	<u>14</u>
TOTAL	135

Recruitment and Selection

Children are referred to the program by pediatricians, Children's Hospital personnel and other agencies familiar with the project. The major enrollment change over the course of program operation has been to serve younger and more severely handicapped children than originally planned. This change arises out of the increasing resistance of parents to the institutionalization of handicapped children as a method of "treatment" and the increasing awareness of parents and educators of the need for early intervention with the handicapped.

Before a child is admitted to the Preschool, certain data are collected by parents and staff to determine the extent of the child's handicaps and the appropriateness

of the program for his needs. Acceptance also depends on training and research needs, available classroom space, and the possibilities for referral to more appropriate agencies. Upon receipt of a parent application, the Instructional Coordinator in charge of the program serving the child's particular handicaps helps the parent record baseline data on his behaviors. The Coordinator may also contact the referring school or agency to request baseline data. In each case, the Preschool Nurse reviews the child's medical history and consults with the Instructional Coordinator about acceptance.

When all of this information has been gathered, a meeting of the Consultant Advisory Committee, composed of the Director, the Admissions Coordinator, the appropriate Instructional Coordinator, the School Nurse and Secretary is held in which:

- The Program Coordinator presents home and school baseline data, an evaluation of the child's needs, potential for development and possible future placement in the community;
- The School Nurse presents the medical history;
- The Admissions Coordinator reviews school district transportation and fee information, if relevant.

If the program cannot accept a child, referral to other community services is discussed and suggestions for placement are made to the parents by the Admissions Coordinator. If the child is accepted, he is enrolled as soon as possible. The program tries to keep its waiting list down to five per program, and students are enrolled throughout the school year, so full enrollment is not usually reached until spring.

#### Placement

The Preschool's goal is eventual integration of each child into his or her public school district. Last year, this goal was reached with the exception of two children in the Communication and Preschool Programs. The rate of integration for children in the Down's Syndrome Program is considerably slower because these children often have more seriously debilitating handicaps. Preschool students are placed in follow-up programs which best meet their needs, including regular kindergartens, first grades, or special-education classes in public schools. Each week the Admissions Coordinator contacts the Special Education Directors of cooperating school districts for reports on the progress of former Preschool students

and to keep abreast of district services for handicapped children.

When a child is ready for a public school program (usually within one or two years), the Preschool teacher and Admissions Coordinator meet with the district staff who will be working with him or her; they review important aspects of the child's functioning and progress in the Preschool and plan for future services in the district. Moreover, the teacher of each classroom where a program child will be placed is required to observe that child in the Preschool classroom prior to placement. Program staff familiarize the teacher with the child's case history, present needs and special considerations for integration.

After the child has been placed, his Preschool teacher conducts one year of formal follow-up, including observation of the child and training of the new teacher where appropriate. The Admissions Coordinator also contributes by assisting the district Special Education Director when needed and providing feedback to Preschool staff on the child's progress.

#### STAFF

The Model Preschool Program has a staff of some 35 full- and part-time people for its direct service (135 children) and its field work (some 400 children) components. Overall administration is handled by the Project Director, Co-Director and an Administrative Assistant. The Director and Co-Director both hold doctorates in early childhood education and have considerable experience in special education, child development, psychology and administration. Each component within the project (Preschool A and B, Down's Syndrome, Communication) is headed by an Instructional Coordinator with a Master's degree who functions as lead teacher, supervisor and professional resource for program development. Instructional Coordinators direct their own programs and have a wide range of responsibilities: they provide leadership in improving and modifying teaching procedures.

Each classroom has a head teacher (Master's degree), an assistant teacher (Bachelor's degree) and several interns, work-study students, specialists and volunteers. Under the supervision of the teacher, the interns and their assistants are responsible for daily data gathering, development of individualized behavioral objectives, and assisting in the planning and execution of the classroom program. Volunteers usually donate all their time, while others--usually specialists--are paid by the hour. In addition, the Communication Program has two specialists who consult with teachers when needed.

For its field effort, the Preschool has a Bureau of Education for the Handicapped/Office of Child Development representative, a Speech Therapist and a senior teacher. Support staff for the overall Preschool Program includes two secretaries, the School Nurse, an Admissions Coordinator and an Evaluator.

### Recruitment and Selection

In selecting staff, the Program Director and Co-Director seek professionals who have either had advisory contact with the program or who have demonstrated their commitment to education for handicapped children. The roles and duties of different staff members and the program's expectations of competencies are spelled out clearly and discussed with intern applicants and the overall staff. Everyone knows what competencies must be demonstrated in order to move from one level to another in the program. When a position is vacated, it is generally filled in-house by the Director's choice.

The program has assembled a highly qualified staff. In addition to the Director and Co-Director discussed above, each Instructional Coordinator is a leading expert in her field. Several staff members have served as distinguished professors in Departments of Child Development across the country. The majority of teachers and lead teachers are recent graduates of University of Special Education programs or are currently working on their advanced degrees.

### Role of Volunteers

The Model Preschool Program currently has 7 regularly scheduled volunteers who serve as classroom assistants, participants in special tutorial projects with children, and as data recorders. Parents, high school students, college students and community members volunteer in the Preschool anywhere from one hour to a full 40 hours per week. The amount of training each volunteer receives depends on the amount of time spent with the program. For example, a one-hour per week volunteer might be trained only in simple data recording procedures, while a 20-hour per week volunteer who has served more than one quarter of the school year would receive training similar to that for regular staff. All classroom volunteers are expected to participate in the daily staff meetings for their particular class.

### Pre- and In-Service Training

Prior to the beginning of the school year, a week-long orientation meeting is held for all staff to explain EEU's current activities and projects, introduce Preschool staff members and present new reports, films and research findings in special education. Following this all-staff orientation, staff from each component meet to discuss and prepare curriculum, project objectives and classroom procedures. Staff members review the case history of each child enrolled and formulate "plans of action" which outline behavioral objectives, parent involvement and teacher support.

In-service training sessions for the entire staff are held throughout the school year in which special guest speakers typically present their research and discuss with staff the implications of their findings. Each program component also has in-service training at the end of the school day. In all classrooms, each teacher, assistant, volunteer, or participating parent is expected to set up classroom equipment and prepare materials, conduct and supervise classroom activities, and collect data and write evaluative case studies.

In addition, there are regular staff meetings to plan and act on specific projects and problems. All other aspects of in-service training, including the setting of objectives, activities and performance criteria, are specific to each program component and are organized for trainees by the Instructional Coordinator and classroom teacher. For instance,

The A and B Preschool Programs require that trainees attend:

- Daily staffings in which performance is criticized, teaching techniques are reviewed and analyzed, and basic philosophy and theory are discussed as they relate to the day's classroom events;
- Weekly seminars in which preschool curriculum, child development and behavior modification techniques are discussed in detail; and
- Seminars, films and conferences offered by related departments at the University.

The Down's Syndrome Program requires that trainees attend:

- Daily staffings similar to those described above; and
- Parent meetings and conferences.



The Communications Program requires that trainees attend:

- A weekly staff meeting where research, management techniques, parent programs and improved training for students and visitors are discussed.

## PARENTS

Although the Preschool's Parent Program is organized by component, common elements (types of activities and parent-teacher interaction) do occur across the program. Each year the Experimental Education Unit sponsors an Open House for all parents and Preschool staff to acquaint parents with the range of programs offered and to allow them to examine the program their child is taking and the one he might eventually be transferred to.

Each quarter the parents attend a parent-teacher meeting in which video-tapes of the Preschool are shown and parents are encouraged to discuss with staff general problems and topics of interest. Next, parents and teachers break up into small groups by program component to discuss issues specifically related to individual children and classes. Mothers who have collected and graphed data on their children share information with other parents. In general, parents have found these small discussion groups quite valuable: they have gained strength and optimism from sharing their problems as well as their achievements with other parents of handicapped children.

Teachers are readily available to answer parents' questions after classes each day and many mothers use this time to discuss a particular problem they are having with their child at home or learn how to reinforce a newly-acquired skill. Mothers are encouraged to sit in on daily staff meetings and to volunteer to teach or observe in the classroom. Parents are also encouraged to bring the child's siblings, relatives and/or friends along for observation to increase family cooperation and understanding of the Preschool Program. Classroom observation, the most predominant form of family involvement in the program, is useful in two ways: first, observation helps parents learn teaching and behavior management techniques; and second, it allows parents to watch an objective professional work with their child.



The major differences in each component's parent program are described below. These differences reflect the way parent involvement has been shaped to meet the specific needs of children served by each component.

- Both Communication classes have regularly scheduled observation-conferences where parents are shown how to encourage newly demonstrated behaviors.
- The Hearing-Impaired Communication Program has weekly classes in which parents are taught the Total Communication Approach--how to use sign language along with verbal communication.
- Preschool A schedules parent-teacher conferences once every quarter, while Preschool B sends home written evaluations every quarter, scheduling conferences when necessary.
- The parents involved in the Down's Syndrome Early and Advanced Programs must assist in the classroom at least once a week. They are taught techniques in observation, recording, behavior modification and general nursery school management. At the staffing that follows, teachers and parents evaluate the day's events, and determine how the child's gains can be maintained at-home.

#### COMMUNITY

The Preschool is in close contact with almost every group, agency, organization, clinic and institution serving young handicapped children in Washington. The staff considers coordination with other agencies an essential aspect of program operation, and several staff members have important responsibilities on state and local committees such as the State Advisory Committee for Handicapped Children, the Washington Association of Administrators in Special Education, the Council for Exceptional Children, the Mental Health and Mental Retardation Board, and the State Committee on Developmental Disabilities.

The Preschool's full-time Admissions Coordinator spends part of her time securing cooperation and developing new relationships with community resources such as the Children's Orthopedic Hospital, the public schools, Easter Seal Society, free clinics, and other agencies and individuals interested in handicapped children. Services offered by these agencies and individuals include (but are not limited to) referral of prediagnosed handicapped children to the program, material support such as orthopedic devices, outside agency staff support for continued follow-up on children leaving the program, financial assistance for children from

low-income settings, and professional cooperation in the research and treatment of handicapping conditions.

A valuable aspect of the Model Preschool's community linkages is the program's effort to disseminate information about its work with handicapped children and general information on various handicaps of interest to agencies and parents alike. One mission of the Preschool Program is to develop community awareness of the need to recognize and integrate handicapped children into regular school settings. The project's staff have been able to arouse public concern and gain support in this area throughout the State of Washington through their relations with various community agencies. Further, these supporting agencies, together with the project, have been influential in the development and improvement of a growing number of other programs for handicapped children.

PART FIVE:  
PROGRAM EVALUATION

EVALUATION DESIGN

The Preschool's evaluation consists of ongoing analysis of program operations as well as continual assessment of each child's progress. A part-time evaluator is responsible for collecting data and setting up computer programs for processing assessment information and developing statistics. The Model Preschool is also shaping its data collection procedures to establish "normal" developmental patterns for handicapped children, to determine the amount of time it takes to remediate certain developmental deficiencies, and to establish specific teaching procedures for working with the special problems of handicapped youngsters.

The project's evaluation system is designed to improve instruction, performance and services for handicapped children through the behavioral data collection and assessment techniques described in Part Three, Notable Features. Staff members work continually to improve the programs they offer by periodic measurement of at least two behavioral objectives for each child; use of video-tapes to record performance for later review; and data charting, analysis and summary at frequent intervals. Each teacher is responsible for collecting data which can be computerized at her request on individual children in her class. The computerized system has resulted in a system of defining behaviors, a homogeneous pupil file, and the beginnings of a data bank for a longitudinal study of handicapped children.

SUMMARY OF EVALUATION FINDINGS

Because the program concentrates on individualized instruction and pupil assessment, staff feel that success with students can best be assessed by examining student case studies. Individual in-depth case studies have been written for some 50 students in the program.\* These studies report daily observations of the children in classroom settings and illustrate the systematic, step-by-step development of programs for them. A sample case study is included at the end of this section.

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\*Selected Case Studies, Model Preschool Center for Handicapped Children, Experimental Education Unit, University of Washington, Seattle 98105.

Staff also feel their placement statistics are an index of program success (only three students were not placed within their "home" school district during the past academic year). The number of students placed in various programs last year was:

	<u>No. Transferred to Special Ed. Programs</u>	<u>No. Transferred to Regular Ed. Programs</u>
Communication	25	10
Preschool A & B	10	14
Down's Syndrome	0	0
Infant Learning	<u>0</u>	<u>0</u>
	35	24
	35	24
Deaf-Blind	4	0
Multisensory	4	0
HEAD START:		
Behavior Management	1	12
Summer 1972	<u>2</u>	<u>48</u>
	11	60
	<u>11</u>	<u>60</u>
	46	84

Other statistical indices of success include the pre- and post-test results which indicate child progress. For example, the Communication Program computed the language age gain in terms of months by charting progress on the Sequenced Inventory of Language Development. Young, language-deficit children (3 to 4 years) scored a mean gain of 1.56 Language Age (LA) per month; the older language-deficit children (4 to 6 years) averaged 1.80 LA gain per month, and the acoustically handicapped children showed 2.12 LA per month.

The children in the Down's Syndrome Program (2½ to 5 years) were assessed with the Peabody Picture Vocabulary Test, which revealed that children who had been in the program at least one year had a developmental lag of only 5.3 months, while children who had just entered had a lag of 21 months. The Infant Program (5 weeks to 18 months) reported similar data based on the Denver Developmental Screening Test. Children who had been in the program for an average of 7.8 months showed a mean developmental lag of only 1 month while those who had just entered showed a mean lag of 7 months.

The following is a sample from Selected Case Studies:

#### Case 7: Doris

##### Problem

Doris, a 1 year and 8 months old girl with Down's Syndrome, spent most of her time sitting on the floor playing by herself and would not stand while holding on to a table for support for more than 15 seconds at a time.

##### Target Behavior

Doris would stand at a piano bench for increasing lengths of time during a five-minute period each day, with a goal of two minutes' total standing time during this period.

##### Procedures

A xylophone was used as both motivation and reinforcement for standing. The teacher placed the xylophone on the piano bench so that Doris had to stand in order to reach it. The teacher used a stop watch to time Doris's standing. After the teacher took baseline data on Doris's standing behavior, she began shaping Doris's standing by pairing strong social reinforcement with the reinforcement of allowing Doris to play with the xylophone. The teacher gradually faded out the social reinforcement. Eventually, using an extinction schedule, the teacher also dropped the xylophone as a reinforcer. The teacher then taught Doris to generalize her standing from the piano bench in the music corner to tables in other activity areas with different stimuli.

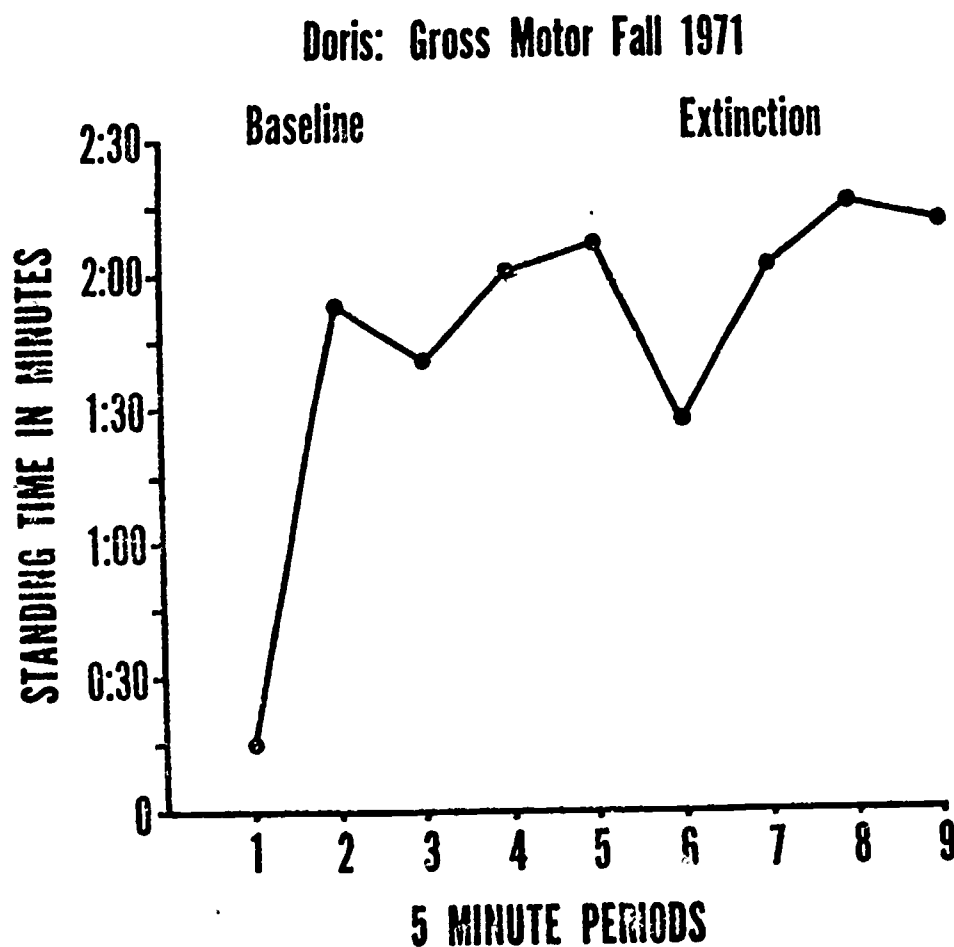
##### Results

Figure 7 shows a marked upward trend in Doris's standing time from the first day, when baseline data were taken, to the following intervention days. Doris actually surpassed the goal of two minutes of total standing time in five out of the nine days when data were taken. The decrease in standing time on day 6 is due to the teacher's discontinuing the xylophone as a reinforcer. During this period, when Doris pulled herself up to the bench, the teacher removed the xylophone. Days 8 and 9 were generalization sessions. Doris stood at the activity and concept tables on these days.

### Discussion

The data indicate that after only nine days, Doris was willing to stand at a table for a short period of time, her standing was generalized from the piano bench to tables in the room, and neither the xylophone nor social reinforcement was necessary to maintain her standing. It seems that standing was already becoming intrinsically rewarding to Doris.

Before the quarter was over, Doris began walking independently, reaching the long-term goal much sooner than teachers had anticipated. She is now very active in the classroom and participates in many gross motor activities.



PART SIX:  
RECOMMENDATIONS AND FURTHER INFORMATION

RECOMMENDATIONS FOR REPLICATION

The Experimental Education Unit encourages other programs or interested individuals to examine its model and will provide dissemination materials on request. However, the program cautions those interested in replication to:

- Be certain they are intimately familiar with behavior modification techniques.
- Completely understand the fundamental principles involved in data collection and assessment.
- Be absolutely systematic in applying procedures.
- Acquire all the skills necessary for observation of handicapped children.

FOR FURTHER INFORMATION

For further information about the Seattle Model Preschool Program contact:

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Experimental Education Unit, WJ-10  
Child Development and Mental Retardation Center  
University of Washington  
Seattle, Washington 98195  
(206) 543-7583

MATERIALS AVAILABLE

A selected bibliography of publications and contributions of the Model Preschool staff is presented below. Copies of these materials are on file at the Preschool; many are reported by ERIC and available from Instructional Materials Centers.

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THE PEECH PROJECT  
CHAMPAIGN-URBANA, ILLINOIS

*A precise early education program for three  
to five year old multiply-handicapped  
children, notable features being its  
parent program and dissemination activities.*

October 1972

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Patricia Cook  
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PART ONE:  
INTRODUCTION

OVERVIEW

The primary goal of the PEECH Project (Precise Early Education of Children with Handicaps) is to demonstrate and disseminate model procedures for developing and implementing a preschool program for young handicapped children and their families. The secondary, service-oriented goal of the project is to provide 20 multiply-handicapped children with an early education program which will prepare them to function in the educational system at a higher level than would have been possible without intervention.

The children served by the PEECH Project are between the ages of three and five. All of the children function at a mentally retarded level and have one or more secondary handicapping conditions (e.g., hearing and visual impairment, neurological, language and speech problems, potential learning disabilities, behavioral problems and emotional disturbances) which have typically excluded them from other preschool or day care services. The Project aims to develop each child's maximum potential while increasing parental abilities to understand, accept and teach their handicapped children. PEECH staff, in an effort to reach their goals, have formulated a program based on early intervention; individualized instruction; behavioral change through positive reinforcement; diagnosis, precise planning and evaluation; low teacher/pupil ratio through the use of paraprofessional staff; ongoing staff development; and close contact with the public schools which accept PEECH children.

CONTEXT OF THE PROGRAM

Located on the University of Illinois' Urbana campus, the PEECH Project began in 1970 with an Office of Education, Bureau of Education for the Handicapped operational grant. With the Project's future Coordinator and Evaluator, the Director surveyed community needs and resources for a multiply-handicapped program, recruited and arranged diagnosis of children to determine skills

rather than disabilities, and hired staff, many from programs she had previously operated. A number of the staff, both professional and paraprofessional, had not worked with severely-handicapped children before, and it was approximately six months before they felt real confidence in their abilities. Staff also encountered many support and counseling needs among parents which required special sensitivity. Some parents were convinced their children were untreatable and beyond hope because so many agencies had turned them down. It is typical of the PEECH Project that staff worked hard to place, not simply refer, children who did not meet the program's criteria for enrollment.

The PEECH Project is funded by four sponsors: the Bureau of Education for the Handicapped (BEH); the University of Illinois College of Education, Institute for Research on Exceptional Children (IIEC); the Illinois Office of the Superintendent of Public Instruction (OSPI); and the Urbana Public School District. Of PEECH's 1972-73 budget (\$179,229), 73% comes from BEH, 18% from the University of Illinois, and 9% from Urbana public school funds. In addition to financial support, each sponsor provides a number of services to the Project, from technical and consultative services to transportation.

Now in its third year of operation, PEECH is shifting its emphasis from the demonstration aspects of the program (classrooms, parent programs, in-service training) to an increased concentration on dissemination of the PEECH model. The Project is being replicated at 13 sites in Illinois during the 1972-73 school year.

PART TWO:  
PROGRAM OPERATIONS

The Classroom

The PEECH Project attempts to provide children with the skills they will need to integrate as fully as possible into regular educational settings. In order to individualize learning experiences for the children, the Director has developed a set of "Developmental Guidelines," compiled from various sources including the Bayley Scales of Infant Development, the Sheridan Developmental Scale, the Vineland Social Maturity Scale and several others. These detailed guidelines describe normal skills and behaviors for children 0-72 months of age in five skill areas: gross motor, fine motor, cognitive, linguistic and verbal, self-help and social skills. The behavior of each new child is evaluated according to these five areas and specific individual objectives are determined and written in behavioral terms.

Specific lesson plans developed by the teacher detail the general goals of the planned activity, the specific behavioral objectives for each child involved, the materials needed and the step-by-step teaching procedure. The goals and objectives of individualized lesson plans are based on the Developmental Guidelines; the teaching procedures are related to those suggested in the Goal Curriculum\* and other relevant curriculum programs.

This general daily schedule is taken from PEECH's "Summary of Goals and Objectives";

- |             |  |
|-------------|--|
| 8:00 - 8:45 | <u>Planning session.</u> Teachers view lesson plans, objectives for children, and daily schedule. Materials to be used that day are organized.   |
| 8:45 - 9:00 | <u>Arrival.</u> Children arrive and are individually greeted by a teacher. Self-help skills are emphasized (removing outer clothing, toileting, handwashing).  |
| 9:00 - 9:15 | <u>Directed Play.</u> Children are free to select from puzzles, form boards, cylinder blocks, stacking rings, self-help boards, and books. Language concepts are reinforced by labeling, describing, questioning, and listening. |

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\*This curriculum was developed by the Director, Dr. Karnes, and is presently being published by the Milton Bradley Co. in Springfield, Massachusetts.

- 9:15 - 9:20 Transition (greeting). After helping return materials to the shelves, children gather as a group to participate in a greeting activity. Concept development as well as appropriate attending behavior in a large group is developed.
- 9:20 - 9:35 Structured small group activity. Children meet with teachers (one to four children per teacher) for language development, math readiness, or social studies.
- 9:35 - 9:55 Snack. Toileting, handwashing, setting table, preparing food, where the emphasis is on spontaneous conversation, as well as the development of specific language concepts. Children often help prepare the foods. Social behavior and self-help skills can be taught meaningfully in this context.
- 9:55 - 10:10 Structured small group activity. Language development, math readiness, or fine motor development are emphasized.
- 10:10 - 10:15 Transition (movement). Children and teachers participate in short pre-planned activities involving music and movement.
- 10:15 - 10:30 Structured small group activity. Language development, math readiness, or social studies and science are emphasized.
- 10:30 - 11:00 Physical activities. Playground activities under the direction of the Supervisor of Physical Activity and Integrated Behavior develop the child's motor abilities as well as provide an extension of the child's cognitive development.
- 11:00 - 11:20 Quiet time. Children and teachers divide into small groups and participate in relaxed sessions where the children are free to play with manipulative toys or to read books.
- 11:20 - 11:35 Music. The entire group participates in songs that teach basic concepts and in auditory discrimination activities using simple rhythm instruments.
- 11:35 - 11:55 Directed play. In addition to activities mentioned previously, children select from blocks, a house-keeping corner, and art activities (including cutting, tearing, pasting, painting, and clay).
- 11:55 - 12:00 Departure. Children put on coats and nametags. Teachers accompany them to waiting taxis.

### The Playground

The PEECH Project has a unique playground which is used primarily as a teaching facility and only secondarily for recreation. Developed specifically to meet the needs of young handicapped children, the playground is a facility for extending the five learning areas from the classroom to the out-of-doors. Using development of gross motor skills as the baseline objective, the playground also promotes learning in the areas of cognition and language, social skills and self-concept.

The playground contains a climbing structure with eleven platforms connected by various types of climbing apparatus; a combination tunnel-slide which also has a balance beam and ladder; a cable swing with large ladder; a sand/water area with a climbing structure and water gutters; a tricycle path system which is a small garden with paved, hilly pathways; an outdoor classroom; and a garden for social studies and science. There's also an open area for general play.

Each class of ten children has one half-hour of directed play outside. The period includes both structured large and small-group activities and free play time, under the supervision of the program's Supervisor of Physical Activity and Integrated Behavior and his three student assistants. The Supervisor coordinates goals for each child with project staff.

PEECH's playground was built for less than \$1500, thanks to donated labor and materials. The playground was designed through a joint effort of the Department of Landscape Architecture, Therapeutic Recreation, and IREC, with consultation from the Motor Performance Laboratory of the Children's Research Center of the University. Architecture students assisted in the design and provided volunteer labor, while local merchants provided the materials. The construction effort is an excellent means of involving parents, particularly fathers. The process requires some people who are handy with tools and one person who can interpret blueprints. PEECH's blueprints will be available on request by Spring of 1973.

PART THREE:  
NOTABLE FEATURES

Although many aspects of the PEECH Project are outstanding, the PEECH staff, in conjunction with Abt field personnel, selected the parent program and the project's dissemination efforts as its most notable features.

THE PARENT PROGRAM

The Model

The PEECH Parent Program is based on the assumption that parents become involved in programs if:

- the involvement is meaningful
- they are included in the decision-making process
- they receive feedback from program staff
- the program is individualized to meet their need

From these assumptions, the ATSEM model of parent involvement was developed--acquaint, teach, support, expand, and maintain. The "acquaint" phase involves home visits made by the Parent Program staff and parent observation sessions in the classroom. Staff discuss with parents the attitudes, behaviors and problems of the family and plans are formulated to involve parents in the project. The "teach" phase involves teaching family members techniques, skills and attitudes that enable them to teach their child new behaviors. Via tapes and teacher demonstrations, family members learn concrete tasks to teach the child.

The "support" phase means helping families obtain whatever kinds of emotional, social or economic support they need, ranging from group counseling to instruction in seeking financial aid to referrals to community agencies. The "expand" phase of this model occurs when parents expand in their abilities to interact with and meet the needs of their child. Staff also try to get parents to expand their life outside the family unit and develop new interests. The final phase, "maintain," seeks to maintain the family's achievements and to continue to foster their development through calls and visits by staff members. In some cases, families are involved in the "acquaint" stage for new parents.




Obviously, these phases may overlap or may not occur at all in some cases. Some families will only require "support" throughout their involvement with the project, with others never progressing beyond the "acquaint" phase. This is why PEECH staff feel that individualized programs are essential for parents as well as children. The PEECH Parent Program staff currently consists of one full-time Parent Coordinator and two half-time assistants.

### The Activities

There are five levels of participation, and each family is involved to the extent it wishes.

- Parent-Staff Group Meetings

Once a month a meeting is held during the evening which all staff members and many parents attend. Typically, three-quarters of the students are represented by their parents at these meetings. Discussion ranges from classroom objectives to sibling rivalry, to reports by parents about successes at home. Special guest speakers are often scheduled to present lectures and answer questions. Time is also allotted for the parents to meet with their child's teacher. And, occasionally, the parents meet to build new toys and equipment for the classrooms. These meetings provide the parents with the opportunity to learn from the staff, from the guest speakers, and, more importantly, from each other. 

- Home Visits

Each month a Parent Program staff member visits the family's home to both give and receive information. The home visitor, having spent time observing the child and discussing his progress with his teacher, is able to give reports to the parents as well as encourage and support them in their home teaching endeavors. The home visitor can also observe and evaluate the progress of the family and child and note any problems or parent concerns about the child's educational progress. The visitor then relates this information to the teachers who often develop teaching objectives accordingly.

- Three-Way Conferences

The three-way parent-teacher-child conference is held at school or during the monthly home visit. During this meeting, the teacher demonstrates a teaching task with the child, which the parent then performs. The parent receives immediate feedback from the observing teacher. This conference provides the parents with new teaching skills and the teacher with information on the parents' interactions with the child.

- Classroom Observation

Each family is also scheduled to observe their child in the classroom once a month. This is a carefully guided observation with the teacher available for discussion immediately following the class.

- Classroom Participation

One of the basic activities of the parent program is actual teaching in the classroom. Parents are prepared for this through discussions with Parent Program personnel and teachers, as well as through observation of the classroom and role-playing. When a parent is ready, plans are made for him or her to perform direct teaching under close supervision.

Originally, the parent program included weekly group meetings and home visits, but this was felt to be too demanding on the parents and detrimental to their relations with their other children. At present, there are a total of four monthly events for each parent, in addition to the informal telephone calls made by program staff.

For every activity that does occur, even phone calls, there is an accompanying objective sheet to be completed by the staff member involved. This lists the activity objective, parent and teacher comments, overall reactions and staff suggestions.

Aside from the basic program, there are several other levels in which parent involvement is encouraged, particularly in the classroom. Parents who volunteer are assigned specific tasks such as collecting language samples, tutoring, reading to a child, or assisting in a group activity. (Parents generally do not work with their own children.) Parents who prefer not to become involved in the classroom work in the PEECH administrative office doing clerical tasks. A bi-monthly parents' newsletter is published and parents contribute articles and help with typing. In the Fall and Spring there are picnics, and other events (such as a group trip to the circus) are organized during the year. There is also a parent lending library of books, toys and activities to help parents in their home teaching endeavors.

## DISSEMINATION

From the outset, PEECH's main objective has been the dissemination of a model preschool program. To this end, the program has a Dissemination Coordinator and 2 half-time disseminators. Demonstration is the first of five steps which constitute PEECH's dissemination effort. Potential visitors are contacted at public schools, universities, county associations for retarded children and other agencies throughout the state and country. PEECH staff prepare for a demonstration visit by conducting a needs assessment of each group and creating a schedule for it. A typical schedule starts in the morning with a half-hour overview of the project, including a 3-projector slide show with sound and a general discussion. Visitors and dissemination staff observe the classrooms from the observation booth. All lesson plans for the day's activities are displayed in the booth so visitors can follow along with the teacher's objectives.

The rest of the day is spent in discussions with the Director, Program Evaluator and teachers, and a slide show is presented by the Parent Coordinator. Visitors also receive a comprehensive dissemination packet which includes program materials and resources. As they prepare to leave, each guest is asked to fill out an evaluation of the demonstration day to help with future planning.

The demonstration is open to anyone interested in visiting the program, although PEECH is primarily interested in potential replicators. Last year, letters were sent to all special education directors (77) in Illinois, followed-up by phone calls (60) from the Director to acquaint them with the PEECH model and assess their interest in replication. Representatives from 25 districts visited PEECH: of that group, 13 decided to replicate the project and are actively involved in setting up classrooms at the present time.

The following chart (Figure 1) has been devised to help administrators compute estimated costs for a PEECH-type program. The chart lists the staff, space, facilities, and materials needed for the program; but no cost figures are provided since, for replication purposes, local cost data must be used, inasmuch as costs vary from district to district.

FIGURE 1. BASIC AND RECOMMENDED NEEDS FOR A CLASSROOM OF TEN  
MULTIPLY HANDICAPPED PRESCHOOL CHILDREN

STAFF	BASIC	RECOM.	TIME	RESPONSIBILITIES
One certified head teacher with training in the early education of the handicapped.	X		100%	<ol style="list-style-type: none"> <li>1. Direct classroom activities and supervise paraprofessionals.</li> <li>2. Conduct inservice training for paraprofessionals.</li> <li>3. Organize and direct parent program.</li> </ol>
Two paraprofessionals	X		50% each	<ol style="list-style-type: none"> <li>1. Teach under the direct supervision of head teacher.</li> <li>2. Participate in inservice training sessions.</li> <li>3. Perform other classroom duties as assigned by head teacher.</li> </ol>
One certified school psychologist	X		as needed for testing	<ol style="list-style-type: none"> <li>1. Pre- and post-test each child.</li> <li>2. Interpret test results.</li> <li>3. General consultation.</li> </ol>
One certified social worker		X	1-2 hours weekly	<ol style="list-style-type: none"> <li>1. Consultation.</li> </ol>
One certified speech and language therapist		X	as needed	<ol style="list-style-type: none"> <li>1. Consultation.</li> <li>2. Provide therapy for individual children as needed.</li> </ol>
One music instructor		X	on a regular daily or weekly basis	<ol style="list-style-type: none"> <li>1. Provide music program for children and/or</li> <li>2. Inservice training for teaching staff.</li> </ol>
One physical activities instructor		X	"	<ol style="list-style-type: none"> <li>1. Provide physical activities program for children and/or</li> <li>2. Inservice training for teaching staff.</li> </ol>
One certified learning disabilities teacher		X	as needed	<ol style="list-style-type: none"> <li>1. Consultant.</li> </ol>

NOTE: It is recommended that each staff member involved in the program have some previous experience with handicapped preschool children or receive inservice training under the supervision of an experienced person.

BASIC AND RECOMMENDED NEEDS FOR A CLASSROOM OF TEN  
MULTIPLY HANDICAPPED PRESCHOOL CHILDREN  
(continued)

SPACE, FURNISHINGS, EQUIPMENT	BASIC	RECOM.	DESCRIPTION
Classroom	X		Minimum 25' x 35' Provision must be made to divide room for small groupings
Bathroom in or adjacent to classroom	X		1-2 toilets, 1-2 sinks, 1-2 mirrors
Carpet		X	Wall to wall, indoor-outdoor
Drapes		X	
15 chairs	X		Child size
3-4 tables	X		Child size
One storage cabinet	X		With doors
Storage shelves or counter space	X		Accessible to the children
Piano		X	
Record player	X		
Hot Plate		X	
Water table		X	
Three easels		X	

BASIC AND RECOMMENDED NEEDS FOR A CLASSROOM OF TEN  
MULTIPLY HANDICAPPED PRESCHOOL CHILDREN  
(continued)

MATERIALS BASIC TO THE BEGINNING WEEKS OF SCHOOL\*

AREA	MATERIALS**
Social	<ol style="list-style-type: none"> <li>1. Housekeeping corner (dishes, utensils, furniture, food containers)</li> <li>2. Dress-up clothes for role playing</li> </ol>
Self-help	<ol style="list-style-type: none"> <li>1. Montessori Self-Help Frames (or clothing with large buttons, zippers, snaps, hooks, ties, etc.)</li> <li>2. Mirrors</li> </ol>
Gross Motor	<ol style="list-style-type: none"> <li>1. Two balls (or bean bags)</li> <li>2. Balance board</li> <li>3. Other playground equipment</li> </ol>
Fine Motor	<ol style="list-style-type: none"> <li>1. 30 puzzles</li> <li>2. 2 stacking ring toys</li> <li>3. Blocks</li> <li>4. Form boards</li> <li>5. Montessori Cylinder Blocks</li> <li>6. Pounding boards</li> <li>7. Nesting cans</li> </ol>
Cognitive	<ol style="list-style-type: none"> <li>1. 30 sturdy, colorful picture books</li> <li>2. Geometric shapes in a variety of sizes and colors</li> <li>3. Dimensional materials (Montessori Cylinder Blocks)</li> <li>4. Large sturdy pictures of people, animals, foods, and common objects</li> <li>***5. Concrete objects in a variety of sizes, shapes, colors, textures, and functions</li> </ol>

NOTE:

\*The teacher will want to add more materials to meet the needs of individual children. For example, if several children exhibit a visual-motor weakness, she would select materials specifically to strengthen this area.

\*\*The materials listed here are in addition to those normally found in a school supply room (clay, paper, pencils, crayons, paste, scissors, etc.)

\*\*\*Teachers can rely heavily on appropriate concrete objects found in the classrooms or brought from home to reinforce specific content areas.

The next four phases of the dissemination effort apply only to the visitors who are interested in replicating one or more components of PEECH. These phases provide more detailed information, administrative assistance, teacher training, evaluation and adaptation.

The major plans for the future of the project include expansion of the dissemination component to provide assistance to schools or agencies that have chosen to replicate the PEECH model. The PEECH staff plan to conduct staff training and to provide all the necessary assistance to these projects in getting them underway. In addition, there are plans for disseminating the model into 15 school districts this year, with an attempt to serve an equal mix of rural and urban areas.

According to PEECH's Director, there is no existing curriculum appropriate for multiply-handicapped children and available for distribution. She is hopeful that in 1973-74 there will be time for writing up the curriculum presently used by the project and incorporating it into the dissemination component.

PART FOUR:  
PEOPLE IN THE PROGRAM

STUDENTS

Student Demographics

The PEECH Project serves children who are from three to five years of age upon admission and live within a 35-mile radius of the project. PEECH children have one or more handicaps (hearing and visual impairment, neurological, language and speech problems, potential learning disabilities, behavioral problems and emotional disturbance), and all PEECH children are functioning at a mentally retarded level. On the average, PEECH children have three handicapping conditions in addition to being functionally mentally retarded. Almost all of the children have speech difficulties, and three-quarters of them have emotional problems. All children admitted to the Project must be mobile, due to the stairs in the PEECH facility.

PEECH's children have typically been excluded or dismissed from other community programs that were unable to provide services to them due to the number and severity of their handicaps. The children represent all socio-economic levels: most are from two-parent families where the father provides the sole financial support of the family. Three-quarters of the PEECH children are boys; two-thirds are white. Children in the project reflect the ethnic composition of the surrounding communities.

Over the course of the year, the PEECH Project accepts a total of 20 multi-handicapped children -- ten per classroom. The project does not have a waiting list because it does not want to provide false hope for families or agencies by generating more referrals than it can serve. The small number of children served is related to the project's goals of demonstration and dissemination. Those children who are interviewed and found not to be eligible are referred to other programs, such as the KATCH program (operating in the same building under PEECH's Director) for less severely handicapped children, or the Happy Day School for severely mentally retarded children. Fortunately, there are a number of programs in the Champaign-Urbana area to meet the special needs of handicapped children.



### Recruitment and Selection

Student recruitment begins in the late Spring. Contacts are made with numerous individuals and agencies, such as county and city health departments, local clergymen and pediatricians, state mental health centers, visiting nurses' associations, general practitioners and specialists, public and private preschools and day care centers, university personnel who have contact with children, and all local schools.

The product of this recruitment effort is a long list of referrals. The list is generally cut in half after an initial phone call to the family, eliminating those children who don't meet the basic requirements of age, residence, probable handicapping conditions, or mobility.

The next step in the screening process involves the initial interview with the parents. The Parent Program staff members interview the parents regarding the child's medical, social, emotional and intellectual history, as well as the family's social history. In the light of this new data, the cases are reviewed once again. Those who remain potentially eligible are scheduled for individual evaluations by one of two consulting psychologists. With parent permission, past records are obtained by Parent Program staff from medical personnel and other programs previously involved with the child.

Those children still eligible are once again reviewed, this time by the Admissions Committee of the Advisory Council. The Admissions Committee reviews the cases and decides which children are eligible to continue into the two-week trial enrollment in the classroom. During this period, the teacher keeps anecdotal records on the child's language, motor performance and adaptive behavior in adjusting to the routine and demands of the class situation. At the end of the trial, the cases are again reviewed and final selections are made.

Throughout the screening procedure, parents are kept informed of their child's status. They are free at all times to continue or withdraw their child. If a child is determined ineligible and the staff knows of a particularly appropriate program, inquiries about placement are made prior to calling the parents. If the staff doesn't know of a program, parents are referred to other agencies who will help them find one. No family is simply rejected from the project without a referral.

Children who are accepted enter the program on a staggered basis when they have been fully diagnosed and when individual planning for them has been completed. By December, the project typically has taken in its 15 to 20 students.

### Student Follow-Up

In a manner of speaking, follow-up activities begin before a child leaves the PEECH program. More than half of the children presently enrolled are involved in what the staff terms "partial placement". These children are placed for a few afternoons per week in those settings they will enter upon leaving PEECH. Staff actively encourage this system, which opens up communication between two successive programs, allows staff members from both settings to observe and learn from each other, and provides a firm basis for follow-up. When a child does leave PEECH, the teachers from both programs remain in contact. If the child was not previously involved with partial placement, the PEECH teacher will take the first step to establish communication. The PEECH teachers visit the new classroom and receive individual progress reports. The Parent Program staff member also remains in contact with the family via telephone.

### STAFF

The PEECH Project utilizes the following staff for working with 20 children:

	<u>TIME ALLOCATED TO PEECH</u>
Director (1)	50%
Program Coordinator (1)	50%
Program Evaluator (1)	50%
Disseminators (3)	3 @ 50%
Parent Coordinators (3)	1 @ 100%; 2 @ 50%
Motor Development Specialist (1)	67%
Consulting Psychologists (2)	7%
Head Teachers (2)	100%
Paraprofessional Teachers (4)	75%
Paraprofessional Evaluators (2)	75%
Student Teachers (2)	
Speech Therapy Students (4)	
Therapeutic Recreation Students (3)	
Support Staff (secretaries, clerks, etc.) (4)	

The project also has a therapist from the University Speech and Hearing Clinic who supervises the speech therapy students for two half-days per week. In addition, the program uses numerous staff members of the University of Illinois and the Advisory Council members representing statewide service agencies, none of whom are paid by the project.

There are 21 professional and paraprofessional staff members employed by the PEECH Project, including seven men and fifteen women; two are black, nineteen white, and one Oriental.

#### Recruitment and Selection

Professional contacts often recommend teachers, parent staff, etc. to PEECH's Director. This means of staff recruitment has been quite successful. Graduate students who have been trained in the PEECH Project as well as the KATCH Project (a training program under PEECH's Director for teachers of the handicapped) are often recruited to serve as professional staff after training. This way, the senior staff of PEECH can train their teachers directly and choose those who appear to work best with the children. Finally, students in the senior staff members' courses at the University are recruited.

Although there are no formal procedures for staff recruitment and selection, the Director is primarily responsible for both. She uses a personal interview to determine whether potential staff members are able to relate well to others -- the most crucial factor in their ability to function as part of the classroom team. She looks for a sincere interest in children and insight into child and parent relationships.

In each of the two PEECH classrooms there is one head teacher with a Master's degree in special education and two paraprofessionals with high-school diplomas or some higher education. All prospective paraprofessionals must take a standard exam given by the Urbana School District. The top four scorers on this exam are interviewed by PEECH's Director and head teachers. Paraprofessionals accepted by PEECH must take a two-year teacher's aide program at Parkland Community College which includes courses in child psychology, art, English, and practice teaching. This program is not specifically designed for preparation for preschool teaching or working with handicapped children, but such a program is being considered for the future.

### Volunteers

Two types of volunteers are involved in PEECH--parents of project children and graduate students from the University. Parents are encouraged by the Parent Program staff to volunteer time: some work in classrooms, others in the office. Part Three, Notable Features of the Program, describes parent activities.

Graduate students volunteer time in the sense that they are not paid staff. They are fulfilling their practicum requirements by working at PEECH. Three graduate students from the Department of Recreation and Park Administration at the University work with the children during their directed play period under PEECH's Supervisor of Physical Activity and Integrated Behavior. Four students from the Speech Department perform diagnostic and therapeutic services under the supervision of a consultant from the University's Speech Clinic. Finally, two students from the Department of Education are trained in the classroom for one year. They receive stipends from the Illinois Office of the Superintendent of Public Instruction to replicate the PEECH model in local school programs upon receiving their degrees. This arrangement is part of the state's effort to implement the new law requiring school districts to provide early education for handicapped children.

### Pre-Service Training

Paraprofessionals receive a one-week training program at PEECH before school begins, concentrating on discussions, role plays, work sessions and a survey of rooms and materials. The philosophy, goals and components of the program are described, the developmental level of each child is discussed, and classroom responsibilities and procedures are planned.

During the first few days of the school year, the paraprofessional observes the head teacher from an observation booth, then from within the classroom itself. Gradually, she helps with planning and teaching and works up to teaching several lessons a day herself. However, the paraprofessional begins to teach independently long before she is able to plan behavioral objectives and daily lessons. (Proficiency in these areas usually takes five to six months.) Eventually, the paraprofessional writes and conducts entire lessons under the general supervision of the head teacher.

### In-Service Training

Each morning before classes begin, the head teacher and her paraprofessionals review the day's schedule and plan teaching strategies for individual students. The head teacher may role-play a student to prepare the paraprofessional for a particular situation. During the day, the teacher demonstrates teaching procedures in the classroom and tries to reserve some time to watch the paraprofessional from the booth, recording comments on tape for discussion later. When possible, the teacher arranges to have the whole class engaged in speech therapy so staff can observe together. The Evaluation staff discussed in Part Five also make video-tapes of all teachers for staff meetings.

Each teacher meets with her paraprofessional in the afternoon for a two-hour planning session to discuss the day's events, problems, concerns, and resulting plans for the following day. Other staff often sit in to offer their observations.

Once a week, a group meeting is held for the teachers, Program Coordinator, Parent Program staff and the Director of Physical Activities. Teachers and Parent Program staff present the cases of two children, reporting on child and family progress and problems. Progress is evaluated and staff can coordinate their goals.

As mentioned earlier, all PEECH Project teachers visit the programs where their "partial placement" students are enrolled as well as other special education projects in the area to observe other programs and strategies. On the average of once a month, a lecture/discussion by a guest speaker or consultant is arranged by either the head teacher or paraprofessionals. These sessions range from a discussion with PEECH's Director about paraprofessional ethics to a talk by a nurse on how to handle emergencies. Says one PEECH paraprofessional about her training, "The more you know, the more you want to know."

### PARENTS

For a description of the parent program, see Part Three, Notable Features.

## COMMUNITY

PEECH's major community contacts are through the representatives of community agencies who sit on the 21-member Advisory Council. They represent a wide network of social service, medical, state and local agencies, and they consult with staff members individually when needed. Many of the agencies represented on the Council provide direct services to PEECH children, including medical care, speech and language therapy and hearing evaluation, welfare aid, diagnostic and counseling services, and so on. Often these services are free to the parents and the program. The cooperative working relationships with community agencies are integral to PEECH's success. The expertise community members bring to the project is in many cases irreplaceable, and PEECH staff take great care in maintaining such relationships.

Although there have been a number of newspaper articles about the project and staff have appeared on local TV to describe PEECH to the public, there is some concern on the part of staff that they will be inundated with visitors if they advertise the project too widely. Much of their time is already taken up with explaining the program to the many school officials who are considering replicating PEECH in the home districts and to the 13 sites currently involved in replication.

PART FIVE:  
PROGRAM EVALUATION

Evaluation staff consists of the Program Evaluator and two paraprofessionals who conduct on-going, "formative" (as opposed to "summative") evaluations of all aspects of the PEECH Project. The process-oriented or formative evaluation conducted at PEECH aims "to improve, not to prove," in the words of the Program Evaluator. Evaluators try to reflect back to the staff what they are actually doing in their job roles so they can assess their own effectiveness and satisfaction. Although the project does collect and report a certain amount of "hard" or quantitative data to the staff and sponsors of the program, much of the internal emphasis is on reporting qualitative or "soft" data to assess staff progress.

The progress of PEECH children is evaluated through these procedures:

1. Standardized instruments: Children are administered a battery of standardized instruments (Stanford-Binet, PPVT, Beery) which can be readministered at checkpoints for summative evaluation.
2. Criterion tasks: Formative evaluation is provided through the use of criterion tasks established to evaluate the behavioral objectives written for each child.
3. Video-tapes: Video-tapes of the first two days of classroom activities are made to provide baseline data.
4. Parents: Parents are administered a questionnaire to assess their perceptions of the children and provide baseline data.

The two paraprofessional evaluators spend much of their time assessing the classroom component, including video-taping children and teachers, usually at teacher request; conducting language samples; and collecting frequency information on teacher and child behaviors on a multitude of dimensions.

Toward the middle and end of the school year, teachers request video-tapes of certain behaviors (length of time a child attends to a certain task, number and type of words in a child's spoken vocabulary, frequency of teacher reward for a particular behavior) for comparison with the earlier baseline tapes. Paraprofessional evaluators feel that the teachers are not threatened by their presence and that they are well utilized by PEECH.

The paraprofessionals are trained and supervised directly by the Program Evaluator, who works closely with them each day. They sit in on "staffings" of individual children which occur each week and freely report their observations on particular children and classroom situations. For 1972-73, the Evaluation staff will also be concentrating on analysis and documentation of the program for dissemination purposes.

The project also employs an on-site evaluation consultant from the University for technical support in developing procedures (models, charts, etc.) and an "external" evaluator from Peabody College in Nashville, Tennessee who provides observational feedback to the staff during two-day visits three times a year. Staff feel that both types of consultation are very valuable for their formative evaluation design.

#### Summary of Evaluation Findings

Although the PEECH Project relies primarily on formative evaluation, it has prepared a "Summary Profile of Children either Upon Discharge or on Latest Analysis". During the past year, according to the summary, 17 children were discharged from the program and 8 were retained. Of the 17 graduates, 24% were placed in regular school classes, 24% in regular classes with special help, and 47% in specialized settings.

Of the 25 children accepted before Fall, 1972, 23 were tested. Mean I.Q. using the Stanford-Binet test was 63.57: at the end of the year mean I.Q. was 72.30. Some 68% of PEECH's children have registered an I.Q. gain; 16% registered a loss, and 8% exhibited no change. All 25 children are defined as being functionally retarded to some degree, with 92% having speech problems, 72% emotional problems, 48% with organic mental disorders, 40% with motor difficulties, 24% with visual problems, and 20% with auditory problems.



PART SIX:  
RECOMMENDATIONS AND FURTHER INFORMATION

RECOMMENDATIONS FOR REPLICATION

Programs for multiply-handicapped children which are in the start-up phase might benefit from these suggestions by PEECH's Director:

- The Director and the administrative staff should solicit the cooperation of as many agencies and community services as possible to identify children in need of the service and to help locate a facility for the project.
- An adult/child ratio of approximately 1:3 should be established in the classroom (one head teacher and two paraprofessional teachers with 10 children).
- The cooperation of transportation services (local public schools, mental health agencies, Head Start) should be elicited before the children are enrolled.
- Plans for in-service training should be developed before children are taken into the program. Staff should be provided with extensive, on-going training, especially in the early phases of program operation.
- Because of the extensive diagnosis and planning that is necessary as each child enters the program, the enrollment should be staggered so that a few children enter the program at the beginning of each year and other children are admitted at the discretion of the teaching staff.
- All new children should be given a two-week trial to determine whether the program is best suited for them. Parents should be well informed of this policy before the child is admitted on a trial basis.

According to PEECH staff, the parent program is not a difficult one to replicate. The basic, most essential element is the attitude of project staff who must believe that parents play a crucial part in their child's education and can be a great asset to the program. In addition, the PEECH Parent Coordinator emphasized the following:

- Maintaining a separate staff for the parent program is desirable because of the time demands of this component. It is possible, however, for teachers to carry out this function if they are allotted sufficient time to work with the parents.

- Staff in the parent program should be carefully selected as the position calls for non-threatening, understanding people who are capable of handling a variety of sensitive situations that arise in families with handicapped children.

PEECH's dissemination component is also replicable, although new Illinois laws directing local education agencies to serve handicapped preschool children have undoubtedly stimulated interest in the PEECH Project.

PEECH's Dissemination Coordinator maintains that projects which don't have a state law to stimulate interest in them can help themselves as follows:

- Staff can speak to organization of parents of handicapped children (which exist in almost any community) and stimulate them to influence their local school system to develop preschool programs for their children.
- Staff can write letters to all school districts in their state.
- Program descriptions can be sent to all agencies involved in case referrals.
- Media exposure--i.e., newspaper articles, TV shows, radio.
- Staff papers published in professional journals.

For a well-organized and effective dissemination effort, PEECH finds it essential to have a separate dissemination staff to guide visitors, give presentations in the field and help various groups implement replication plans. Without its staff of three half-time disseminators, the scope of PEECH's dissemination component would be greatly limited.

#### FOR FURTHER INFORMATION

For further information about the PEECH Project contact:

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403 East Healey  
Champaign, Illinois 61820  
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### MATERIALS AVAILABLE

The following materials are available upon request from the PEECH Project:

PEECH Handout

Classroom Booklet

Basic and Recommended Needs for a Classroom of Ten  
Multiply Handicapped Preschool Children

Flexibility in Getting Parents Involved in the  
School

Developmental Guidelines (0-17 months)

Developmental Guidelines (18-72 months)

THE PRESCHOOL AND EARLY EDUCATION PROJECT  
STARKVILLE, MISSISSIPPI

*A program for children ages four through seven with developmental and/or language and perceptual problems which has developed its own curriculum and methodology for demonstration and replication purposes.*

December 1972

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PART ONE:  
INTRODUCTION

OVERVIEW

The Preschool and Early Education Project (PEEP) for children with developmental and/or language and perceptual problems currently serves 53 children ages four through seven. Located in Starkville, Mississippi, the Project is sponsored by Mississippi State University in cooperation with the Starkville Public Schools and the Mississippi State Department of Education. The Project serves primarily educable mentally retarded children, although a few students are more seriously disabled. All suffer from language and perceptual problems.

PEEP offers a daily program of compensatory education in classrooms at two Starkville elementary schools. The Project's chief focus is intensive language development and perceptual growth activities, often implemented through art, music and physical education. One of the major objectives of the Project has been the development of a curriculum suitable for its students.

A second, equally important aspect of the Project is dissemination of its curriculum innovations and teaching methods, and the replication of its model program in day-care centers and public schools throughout the state. The Director and Demonstration Teacher travel throughout Mississippi, distributing and explaining their materials and methods and demonstrating their program techniques. To date, some 20 Mississippi sites have participated in PEEP resource/replication activities.

CONTEXT OF THE PROGRAM

During 1967-68, PEEP's Director headed a pilot project featuring an intensive language development program which formed the basis for the Preschool and Early Education Project. PEEP was funded in 1970 by the Office of Education's Bureau of Education for the Handicapped. During the planning year (1970-71), the Project began operating on a small scale by establishing a model class for eight five-year-old educable mentally retarded children from the Starkville area. Operations were expanded in the second year to include two classrooms for four- and five-year-olds, while maintaining the original classroom of students who were then six.

Currently in its third year of operations, the Project has expanded again to include a new class for a total of four classrooms: one each for four, five, six, and seven-year-olds.

Administered by Mississippi State University (MSU) and operated through a cooperative agreement among MSU, the Starkville Public Schools, and the Mississippi State Department of Education, PEEP draws funding and/or services from all three organizations. Program costs for 1972-73 are \$154,250, of which approximately 78% is provided by BEH. Local funds include the provision of classroom space and a portion of the teachers' salaries received through State reimbursement. MSU provides a Project Advisor, consultants, interns; data collection, storage and analysis; as well as financial control and reporting.

PART TWO:  
PROGRAM OPERATIONS

INSTRUCTIONAL PROGRAM

Children are placed according to chronological age in one of four classrooms located in two of Starkville's elementary schools. The children are bussed by the Project to their school by 8:30 a.m. and return home at 2:30 p.m. While at school, there are some opportunities for interaction with students in regular classes at lunch and recess, but for the most part, PEEP classes are self-contained.

Classroom activities stress language development and perceptual activities and staff use art, music and physical education to reinforce these skills. At age seven, a child (if he seems ready) may begin arithmetic, reading readiness, and handwriting. Activities may involve the entire class at one time, or a Teacher and Aide may work with small groups or individuals. At various times during the week, the Project's Demonstration Teacher may take over the class for a particular lesson.

Typical activities used in the classroom are:

- Language Development--puppets, stories, commercial materials  
and Project-developed materials
- Interest Centers--role-playing, dress-up, etc.
- Basic Number Concepts--Stern's Structural Arithmetic
- Parkinson's Program for Special Children--auditory and visual  
discrimination, spatial relationships, concept building
- Frostig Program for the Development of Visual Perception
- Developmental Learning Materials
- Art, Music, Physical Education

A sample daily schedule for the five-year-old class follows:

DAILY SCHEDULE

8:10	Opening Exercises: Songs, finger plays, show and tell
8:20	Calendar and Weather: Report the weather for the day, post the day's weather on the calendar, dress paper dolls according to the weather



8:30	Health Check
8:35	Snack
8:45	Children wash hands and face and brush teeth
8:55	Language Development (entire class)
9:30	Structural Arithmetic: Group I and Group II
	Aide works with children in interest centers while Teacher takes a group for arithmetic: then children change groups. Interest centers include: housekeeping corner, puzzles, string beads, blocks, water play, clay, "wonder box," trucks and cars, dress-up, books, lacing boards.
9:50	Recess
10:00	Parkinson Program for Special Children: Group I, Group II, and Group III
	Teacher and Aide rotate working with groups, while remaining groups work at individual tasks.
10:30	Music (entire class)
11:00	Lunch
11:45	Bathroom
11:50	Nap
12:40	Physical Education (entire class)
1:00	Frostig
1:30	ITPA Remediation
2:00	Art
	Teacher and Aide supervise children.
2:25	Clean-up and departure

### Curriculum

From the onset of the Project, the Director found a critical lack of curriculum in all areas relevant to language development and perceptual activities for pre-school children. The development and implementation of suitable curriculum became the Project's primary goal. Staff and MSU students began assembling existing curriculum materials and developing new ones. Out of this effort came Art for Young Children and Language Development, Preschool Level II. The final volume in the series, a manual on perceptual activities, will be completed by July 1, 1973. Units within these manuals present a brief overview of the skill to be learned and provide numerous activities for teaching the skill. These manuals have been distributed to many educators in Mississippi and other states.

The emphasis is on low-cost or home-made materials, since many school districts in Mississippi have little money for new items. (Some teachers have as little as \$100 per year for the purchase of materials and supplies.) The curriculum, developed with the children presently in the Project, is now used in the classrooms. Through its replication component, PEEP is also able to instruct other educators in the use of this curriculum (see Part Three: Notable Features).

Other materials produced include Psycholinguistic Activities; Body Awareness Activities; and Language Units on Living Things and Health.

#### SUPPLEMENTARY SERVICES

A major PEEP supplementary service is its speech therapy program. On entering the Project, children are screened for speech and articulation problems by the Project's Speech Therapist and assessed by means of the Peabody Picture Vocabulary Test. If speech therapy is warranted, the Therapist informs the child's teacher and parents. Presently, there are 35 children in the speech therapy program receiving instruction twice a week for 15-20 minute periods. The Therapist also works with small groups on language development. This component is particularly critical for the program and ties in with regular classroom language development activities.

Dental services are also offered to Project children. On admission, the Social Worker accompanies each child to one of two Project dentists, or to the child's family dentist. All children get a preliminary examination and a flouride treatment and cleaning. If further work is needed, the Social Worker makes arrangements with the dentist to have this done. Annual physical examinations are purchased for all children from private physicians and follow-through on the physician's recommendations is provided. The Project assumes financial responsibility for these services.

#### Parent Involvement

The two primary objectives of the parent involvement program are to provide home assistance and to give parents a basic understanding of the school environment and the ways they can actively participate in the child's growth in school.

Home assistance is provided by the Project's Social Worker, the Cooperative Extension Services staff and graduate students from the University whose support the Project has solicited. The Social Worker makes periodic home visits to discuss the child's performance in the Project and/or to provide assistance in other social or health-related referrals. Project staff have developed a booklet, Parents Can Teach, Too, which helps parents teach their children various behaviors. This booklet is distributed to and discussed with parents during their home visits. The Cooperative Extension Service and Social Worker provide home assistance to families on nutritional matters. Parents are taught, for example, how to plan well-balanced meals, how to prepare attractive meals, how to effectively use money in buying foods, and what foods can be substituted for others on a low-income budget.

The main thrust of the parent program, however, is the child-centered workshop. Held one morning a week, these workshops are planned and conducted by the Project's Social Worker with the assistance of Project Teachers. About 10 mothers attend the workshops regularly: some cannot because of responsibilities at work or at home. The workshops attempt to provide parents with a knowledge of the school environment, its principles and practices, and offer an opportunity to explore the materials the child uses in school for carry-over into the home. Parents have helped prepare many materials for use both in classrooms and at home. Topics for discussion at these sessions have included how to reinforce learning at home, how to select safe toys for children, and the parent's responsibility to the school. Other issues dealt with in the home assistance program are family planning, nutrition, effective financial management, safety in the home, and toilet training. PEEP staff feel their families are in real need of such assistance because of their low socio-economic and educational status. The County Health Department and the County Welfare Department also provide free literature to parents on the above topics.

Parent meetings held six times a year encompass many of the same topics. Parents are provided transportation to and from the workshops and parents meetings by the Project, other parents, and program staff. Originally, when these meetings were scheduled at the University, parent attendance was poor, but during the latter part of the development year, an organizational meeting held in one parent's home served as a motivational force to get the meetings really going. The group now meets in the school building and attendance is good. The parents and Social Worker plan the programs for the year and put together a yearbook that is distributed to all parents.

PART THREE:  
NOTABLE FEATURES

RESOURCE/REPLICATION EFFORT

PEEP has taken a great deal of care in designing a process that can reach extremely rural areas as well as urban areas. Its curriculum can be replicated partially or totally, depending on the needs and finances of the site and sponsor involved. The central thrust of the resource/replication process is "to disseminate methods and materials to agencies serving preschool and early education children with developmental problems." While staff feel their model is equally applicable to handicapped and non-handicapped children, their primary emphasis remains on the handicapped. Resource services include sending materials to agencies requesting them; making contacts with people working with young handicapped children through letters, participation in conferences, workshops and regional meetings; and, when requested, giving orientation to materials and methods developed by the Project. This process has been successful in attracting some 50 public school, Head Start and day-care personnel who have taken part in workshops, conferences and classroom observation at PEEP.

Agencies interested in replicating the entire model or any of the program's components are given assistance in implementing the program into their particular educational setting. Replication of the curriculum component involves including language development and perceptual training in the daily program. All the Project's materials, ideas and teaching techniques are available to implementing agencies in mimeographed form, and staff also advise on the suitability of commercial materials. A member of the Project staff is available to go to the agency site, demonstrate how to use materials, and help set up a schedule. Subsequent visits offer further assistance and obtain feedback from implementing agencies. There is no charge to preschool and early education agencies serving young handicapped children.

The Project's ultimate goal is to make available to other preschool and early education children with developmental problems any or all of PEEP's components--Curriculum, Parent Involvement, Evaluation and Communication. To date, the Project's resource/replication effort has included 20 sites throughout the state, some of which have involved many public school and day-care classes in one town.

PART FOUR:  
PEOPLE IN THE PROGRAM

STUDENTS

Demographics

In the winter of 1972, 53 children were enrolled in four classes: 10 four-year-olds, 15 five-year-olds, 14 six-year-olds, and 14 seven year-olds. Approximately 90% of the student population is black, 10% white, with an equal distribution of boys and girls.

All 53 students meet Project criteria through their need for language development and perceptual activities; all are classed as "educable developmentally handicapped." While the Project was designed for educable mentally retarded children, several exceptions to this rule are found in the student population. About half a dozen of the students exhibit rather severe handicaps, sometimes accompanied by retardation: Down's Syndrome, cerebral palsy, epilepsy, hearing handicap, emotional disturbance, hydrocephalus. Students with these more severe handicaps were admitted in order to integrate the classrooms as fully as possible. By relaxing the eligibility criteria this way, the Project was able to attract white students (with severe handicaps) and thus achieve some degree of racial balance.

Recruitment and Selection

During its first year, the Project had difficulties with its case findings and recruitment effort. Although physicians, churches and local health and welfare agencies had been contacted for referrals, few came. Enrollment finally got underway after contacts with individual community members and Head Start were developed. Since that time, there has been no shortage of referrals--in fact, some children have had to be rejected because they exhibited learning problems not related to mental retardation or no handicap was evident.

Referrals are accepted year-round, although most children enter the Project during the first few months of the school year. Children are admitted on a first-come, first-served basis, provided they meet eligibility standards. According to state guidelines, PEEP is limited to 15 children per class, or a total of 60. All students are drawn from within the Starkville Public School boundaries.

Screening procedures determined by the State Department of Education require the collection of socio-economic and educational data, the assessment of the social maturity of the child, and certain intelligence tests. Children within a range of 60-75 on the Stanford-Binet test are loosely defined as acceptable by the program. This test is often supplemented by the data from the Frostig, Illinois Test of Psycholinguistic Abilities (ITPA), and other tests to more accurately profile the total child. When staff are uncertain about the appropriateness of their program for a particular child, they take him or her on a one- or two-day trial basis so teachers can help evaluate needs and abilities. A home visit is made by the Social Worker when a child is being considered for the Project.

Applicants must be approved by both the Project staff and a state screening team. After the Project Evaluator tests the child, she forwards her report and the test results to a Regional Screening Team composed of at least four members: a psychologist, a physician, a speech pathologist, and an educator. A social worker and a school administrator may also be included. In all cases to date, this Team has agreed with the Evaluator's recommendations for placement.

#### Placement and Follow-Up

To date, most children remain in the Project, although 13 have been placed in regular classes. Of these, one was referred back to the program and three have received supportive academic services from PEEP. Three children have moved out of the area. If the local school board is unable to pick up project funding for 1973-74, the four-year-olds will be placed in Head Start settings next year. Children from PEEP's three oldest classes will either be placed in Starkville special education classes or regular classes. Starkville has two public special education classes for educable mentally retarded students--one for six- and seven-year-olds and one for those eight and nine.

#### STAFF

The Project Director is an Associate Professor of Special Education at MSU. During 1972-73, she is devoting full-time to the Project, rather than half-time as in the first two years. Along with the Demonstration Teacher, with assistance

from a secretary, she works primarily on the resource/replication component of PEEP. The Evaluator serves the Project half-time, administering student tests, making recommendations for admission and placement, and gathering and analyzing data. A Speech Therapist serves students on a full-time basis, and a Social Worker (3 days a week) is in charge of home contacts and parent education.

Each of the four classrooms is staffed by a Teacher and an Aide. All Teachers (and several Aides) are certified by the state in Special Education and all are young--their PEEP jobs are usually their first teaching positions. Teachers are expected to follow all policies of the schools in which they teach, and are required to attend school faculty meetings. They are evaluated several times a year by their principals. All staff members are female, and include 12 white and two black members, both of whom are classroom Aides. All but two serve the project full-time.

#### Use of Volunteers

Each year, PEEP uses graduate interns and student teachers in its classrooms. Some University students have also participated in classroom activities for practicum experience. The Project has found that there are more volunteer resources available to it than it can use.

#### Recruitment and Selection

Teachers are recruited from MSU or other colleges in Mississippi. While turnover has been high, the Director appreciates PEEP's University affiliation, since it provides the program with qualified teachers. She seeks young, enthusiastic and energetic candidates whom she screens initially, passing her recommendations along to the Starkville Public School System for a joint decision on hiring.

#### Staff Training

In-service training for staff is provided through weekly staff meetings as various staff members compare notes, discuss materials, and plan for the future. These meetings are especially important since staff members are separated during the day. In the fall, new Teachers and Aides spend time observing more seasoned teachers at work, and teaching methods are often demonstrated by the Demonstration Teacher.



Staff also attend various regional and local workshops and conferences sponsored by PEEP, the University, and professional groups.

### PARENTS

Of the 53 families the Project serves, all but four are representative of a low-income population. Parents represent a mixture of age groups since grandparents or older siblings have assumed the role of parent for a significant number of children. More than half are single-parent families. The majority of parents are reported to be totally or partially illiterate and hold employment positions in areas such as domestic work, factory and construction work, dairy farming, day laboring and food service. Roughly half of the mothers are employed. Parent involvement activities include home assistance, parent education and workshop group, and regularly scheduled parent meetings.

### COMMUNITY

The program's many community contacts are essential to its operation and offer a wide array of services. PEEP's Advisory Committee has given invaluable support to the Project. Composed of college administrators, local and state education agency representatives, community members and parents, the 30-member committee represents a variety of disciplines and professions and, as such, can help the Project with a wide range of issues: assistance in curriculum development; case finding and referral; dissemination of Project information on a state-wide level; and direct services such as medical and dental care for Project children. The committee's major responsibility is that of advising and public relations rather than policy-making. The Director has created a racially integrated committee which reflects community composition.

Numerous local and county people and organizations provide services to the Project and its participants. Private physicians and dentists are contracted to give yearly examinations and treatment to students. Other services are volunteered. For example, the Junior Auxilliary, the Girl Scouts and PTA have parties for the classes, and the Junior Chamber of Commerce collects and distributes recycled clothes for Project families. Other active community agencies and organizations include the



4-H Club, the public library, the local/county Council for Exceptional Children, and the Cooperative Extension Service. Contacts with the college community (both MSU and the Mississippi State College for Women) have been highly useful.

PEEP staff encourage interested people, both professionals and laymen, to visit and observe classroom activities. Each class is equipped for observation and is open daily.

PART FIVE:  
PROGRAM EVALUATION

Student Pre- and Post-Test Data

Of all the evaluation measures PEEP uses, this longitudinal study of student progress is the most critical to the program's evaluation. PEEP is providing evaluation from development year through operational year by:

- Determining I.Q. means and net increase in verbal intelligence from pre- and post-test scores on the Stanford-Binet Intelligence Scale for Children.
- Determining Language Age means and net increase in psycholinguistic abilities from pre- and post-test scores on the Illinois Test of Psycholinguistic Abilities (ITPA).
- Determining LA means and net increase in verbal facility from pre- and post-test scores from the Utah Language Development Test (this serves as a check on ITPA data).
- Determining Perceptual Quotient means and net increases in visual perception from pre- and post-test scores from the Frostig Developmental Test of Visual Discrimination.
- Determining I.Q. means and net increases in verbal intelligence from pre- and post-test scores from the Peabody Picture Vocabulary Test.

Children are tested in fall and spring; an analysis of variance is run on the data. While staff acknowledge the problems involved in using the Stanford-Binet with their population, they use it in the absence of a better measure. They are wary, however, of attributing too much weight to their initial results.

Findings to date have been mixed, with some increases and some decreases in scores, and with some initial rises followed by drops. (Figures 1 through 4 on the following pages present a summary of mean differences on selected test variables.) One interesting result so far is that there appear to be two quite different groups of children involved in PEEP. One group shows mixed results on these tests while another group shows significant gains. Staff interpret the higher scores of this second group as an indication that these children are not truly educable mentally retarded but have suffered from environmental deprivation and/or developmental delays which are being overcome, for the time at least.

FIGURE 1. SUMMARY OF MEAN DIFFERENCES ON  
SELECTED VARIABLES--5 YEAR OLDS  
1970-71

Name of Test and Variable Measured	Pretest Mean	Posttest Mean	Mean Difference
Stanford-Binet Intelligence Scale (I.Q.)	62.9	78.0	+15.1
Frostig Test of Visual Perception (Perceptual Quotient)	76.9	78.7	+ 1.9
Illinois Test of Psycholinguistics (Scaled Score)	24.9	27.4	+ 2.6

FIGURE 2. SUMMARY OF MEAN DIFFERENCES ON  
SELECTED VARIABLES--4 YEAR OLDS  
1971-72

Name of Test and Variable Measured	Pretest Mean	Posttest Mean	Mean Differences
Stanford-Binet (I.Q.)	67.33	81.89	14.56
Utah (Language Age)	32.71	44.11	11.41
ITPA (Mean Scaled Score)	26.53	28.14	1.61
<u>Sub-tests</u>			
Auditory Reception	28.50	33.25	3.75
Visual Reception	32.00	35.50	3.50
Auditory Association	23.38	28.13	4.75
Visual Association	26.00	27.38	1.38
Verbal Expression	26.00	34.38	8.38
Manual Expression	29.13	35.38	6.23
Grammatic Closure	24.13	25.38	1.25
Visual Closure	24.88	31.00	6.12
Auditory Memory	25.13	27.50	2.37
Visual Memory	28.25	31.88	3.63
Auditory Closure	32.00	26.63	-5.37
Frostig (Perceptual Quotient)	76.71	92.89	16.18
<u>Sub-tests</u>			
Eye-Motor Coordination	8.00	10.56	2.56
Figure Ground	7.29	8.67	1.38
Form Constancy	7.14	8.00	.86
Position in Space	6.29	8.67	2.38
Spatial Relations	10.00	8.89	-1.11

FIGURE 3. SUMMARY OF MEAN DIFFERENCES  
ON SELECTED VARIABLES--5 YEAR OLDS  
1971-72

Name of Test and Variable Measured	Pretest Mean	Posttest Mean	Mean Difference
Stanford-Binet (I.Q.)	59.83	78.69	18.86
Utah (Language Age)	38.00	53.07	15.07
ITPA (Mean Scaled Score)	22.45	25.05	2.60
Sub-tests			
Auditory Reception	23.92	28.46	4.54
Visual Reception	32.42	30.62	-2.80
Auditory Association	14.00	18.85	4.85
Visual Association	22.83	27.92	5.09
Verbal Expression	25.17	29.00	3.83
Manual Expression	28.50	34.08	5.58
Grammatical Closure	19.17	19.38	.21
Visual Closure	25.75	29.15	.40
Auditory Memory	27.58	30.00	2.42
Visual Memory	27.75	28.15	.40
Auditory Closure	22.42	22.92	.50
Frostig (Perceptual Quotient)	78.82	92.08	13.26
Sub-tests			
Eye-Motor Coordination	7.08	10.92	3.84
Figure Ground	7.08	8.42	1.34
Form Constancy	7.17	10.67	3.50
Position in Space	7.25	8.83	1.58
Spatial Relations	6.92	6.75	.18

FIGURE 4. SUMMARY OF MEAN DIFFERENCES  
ON SELECTED VARIABLES--6 YEAR OLDS  
1971-72

Name of Test and Variable Measured	Pretest Mean	Posttest Mean	Mean Difference
Stanford-Binet (I.Q.)	71.20	74.08	2.88
Utah (Language Age)	46.56	62.00	15.44
ITPA (Mean Scaled Score)	21.35	23.29	1.94
Sub-tests			
Auditory Reception	26.10	26.25	.15
Visual Reception	28.20	27.67	-.53
Auditory Association	18.30	19.67	1.47
Visual Association	20.30	24.33	4.03
Verbal Expression	22.80	24.75	1.95
Manual Expression	25.80	31.58	5.78
Grammatical Closure	15.50	18.42	2.92
Visual Closure	26.30	28.92	2.62
Auditory Memory	25.10	27.33	2.23
Visual Memory	24.10	26.92	2.82
Auditory Closure	16.60	15.75	-.90
Frostig (Perceptual Quotient)	77.10	87.36	10.26
Sub-tests			
Eye-Motor Coordination	9.00	10.73	1.73
Figure Ground	7.00	8.91	1.91
Form Constancy	7.40	8.36	.96
Position in Space	7.90	8.73	.83
Spatial Relations	6.80	7.09	.29

### Parent Evaluation of the Project

Parents are asked to complete an annual form evaluating PEEP's benefits to their child and the family. The form calls for yes/no responses to 41 questions covering such topics as medical care, dental care, social or psychological care, supplementary services and educational services. In the past, the Project's graduate students administered the Vineland Social Maturity Scale, but it was abandoned for research purposes because results were ambiguous and generally unsatisfactory.

### Interim Evaluation

Checklists in the areas of number concepts, handwriting and language development are used periodically by teachers to evaluate the progress of individual students. These checklists, designed by Project staff, consist of yes/no response questions for the teacher concerning the child's ability to perform specific tasks.

### Self-Concept Checklist

Project staff have developed a self-concept checklist to evaluate each child on the basis of observed behavior. For each of six statements, the teacher rates the child on a six-point scale.

### ITPA Remediation

ITPA scores and gains are used for diagnostic and remediation purposes. Each teacher has a class profile of ITPA scores with each child's performance charted in relation to those of his classmates. Thus teachers can structure activities to meet individual and class needs and can evaluate progress in meeting those needs.

PART SIX:  
RECOMMENDATIONS AND FURTHER INFORMATION

RECOMMENDATIONS FOR REPLICATION

PEEP's services are available in Mississippi and can be transferred to other states wishing to set up a demonstration model. The Project's Director makes the following recommendations to those interested in replicating the PEEP program:

- Visit PEEP to see the model in action and confer with the Director and Demonstration Teacher about implementation of replication services.
- Make appointment for PEEP personnel to visit the site being considered for a replicated program and advise on physical facilities, scheduling, purchase of commercial materials and to demonstrate PEEP materials.
- Arrange subsequent visit and follow-through until local teachers no longer need PEEP support.

FOR FURTHER INFORMATION

For further information about the Preschool and Early Education Project, contact:

Dr. Ernestine W. Rainey  
Director, Mississippi State University Preschool  
and Early Education Project  
Drawer EP  
Mississippi State, Mississippi 39762  
Phone: 601 325-5445

MATERIALS AVAILABLE

The following materials have been widely distributed to other model projects and are available on request:

Mississippi State University Preschool and Early Education Project  
Language Development, Level II

Mississippi State University Preschool and Early Education Project  
Art for Young Children

Mississippi State University Preschool and Early Education Project  
Parents Can Teach, Too

An additional publication, Mississippi State University Preschool and Early Education Project Perceptual Manual, will be available after July 1, 1973 at \$4.00 per copy.



THE PORTAGE PROJECT

PORTAGE, WISCONSIN

*A home-based, precision teaching model  
of preschool education for handicapped  
children which uses a prescriptive, be-  
havioral curriculum in training parents  
to teach their own children.*

November 1972

Principal Authors:

Donna Warner  
Patricia Bergstein

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PART ONE:  
INTRODUCTION

OVERVIEW

The Portage Project is a home teaching/parent involvement program for handicapped children ages 0 to 6 years living within a 3600-square-mile rural area in south central Wisconsin. The major thrust of the Project is to train parents to teach their own children at home, using a precision teaching model. The curriculum is prescriptive, behavioral, and planned for each child depending on his present skills and the home environment. Further, the program is data-oriented, emphasizing precise and accurate recording of objectives, activities, and outcomes. Under the guidance of a training and evaluation resource team, a Home Teacher visits each family weekly for about an hour and a half to prescribe specific activities to be taught during the coming week, demonstrate how to teach and record the desired behavior, and observe the parents' teaching techniques. For the remainder of the week, the parent becomes the child's teacher, performing the prescribed activities every day and recording the child's successes and failures. Each of the Project's five Home Teachers serves between 13 and 15 children: current enrollment is 65 youngsters.

The Portage Project staff are also engaged in a wide-reaching dissemination and replication effort which includes pre- and in-service training for preschool program staff, technical assistance to programs replicating the Portage model, training sessions in the precision teaching model, and presentations on all aspects of the Project before professional groups. The replication effort specifically emphasizes that the home-based and precision-teaching models can be adapted to a variety of settings, urban and rural, for all children whether handicapped or not.

CONTEXT OF THE PROGRAM

The Portage Project evolved from a grant proposal originally developed by the Central Colony Training School (a regional facility for the mentally retarded)

and later transferred to and submitted by Cooperative Educational Services Area (CESA) 12, a coordinating agency for 23 public school districts. The Project was funded by the Office of Education, Bureau of Education for the Handicapped in 1969; a Director was hired and a needs and resources assessment was conducted to establish community contacts, construct a referral system, and identify the target population.

As a result of the planning process and needs assessment, a major change was made in the proposed program structure: the original classroom model was replaced by a home-based teaching model. While cost was an issue, a number of other critical factors influenced the change. Children referred were scattered throughout the area and it would have been impractical to transport the very young handicapped to a central location. The wide range in children's ages and types of handicaps also prohibited an educationally practical grouping of children in the classroom. Moreover, the change to a home-based program reflected the staff's strong concern that parents be significantly involved in their children's education.

In the summer of 1970 Project staff were hired, a three-month pre-service training program was conducted, and curriculum materials were developed. In September the Home Teaching model began operating with 50 students and four professional Home Trainers. Since the Project's inception major changes have included the introduction of paraprofessionals as Home Trainers, an expanding emphasis on dissemination and replication, and the transfer of financial responsibility from federal to state and local education agencies.

The direct-service component of the Portage Project is jointly funded by local school districts and the State Department of Public Instruction, Division for Handicapped Children. Each local school district pays about \$800 per Portage child residing in its district. With State reimbursement of 70% of the total cost, actual cost to local districts is only about \$240 per child per year. All funds are channeled through and administered by CESA 12.

Combined local and state funding is expected to continue, although new arrangements are being made to improve planning and increase stability. Currently, school district funding must be renegotiated each year with no assurance that

an adequate number of places will be supported by each district to cover the number of children already enrolled from its area. During the past two years some children have had to be dropped because school districts refused to "buy in" to the Project on a continuing basis. The new funding arrangements call for each district to make a signed commitment to support an early childhood education program with funding based on a percentage of total school enrollment in each district. A year's notice would have to be given before a district could withdraw or reduce support.

The dissemination component of the Portage Project is sponsored for 1972-73 by a BEH outreach grant and a joint BEH/Office of Child Development (Head Start) grant for a total of \$54,000.

PART TWO:  
PROGRAM OPERATIONS

INSTRUCTIONAL PROGRAM

The Portage Project makes no attempt to diagnose handicaps or predict outcomes. The program focuses not on what a child cannot be expected to do but on what a child can do. When a child is accepted into the program, the Home Teacher assesses present behavior and then prescribes activities appropriate for that child--activities that will ensure measurable and rewarding achievement on a short-term basis. Two basic materials developed by Portage staff serve as a foundation for an individualized program for each child: a Developmental Sequence Checklist and a set of 380 Curriculum Cards.

● Developmental Sequence Checklist

Based on normal growth and development patterns, the checklist covers behaviors in five areas: self-help, cognitive, socialization, language, and motor skills. The behaviors are listed sequentially in each category from birth to five years with age ranges at one-year intervals to allow for individual differences. The list was developed from a variety of standardized preschool developmental scales and tests which Portage staff combined into an easily administered and scored behavior assessment tool. Used initially by the Home Teacher to obtain baseline data on a child entering the program, the checklist tells the Teacher what the child can already do in the five developmental areas so she can prescribe behaviors based on this initial assessment. The list is designed to become an ongoing record of entry behaviors, behaviors the child has learned, the dates successes occurred, and the specific curriculum taught. (Figure 1 on the following page is a sample from the list.)

● Curriculum Card File

Five sets of color-coded cards correspond to each behavior on the checklist and contain specific curriculum activities. The card file can be used to prescribe the "how" of eliciting, teaching, and reinforcing emerging skills until they become a consistent part of the child's behavior. The curriculum cards serve only as guidelines and suggestions, not as required material. They were developed by the staff using their own experiences in working with preschool handicapped and "normal" children, and have been revised over the course of the Project. Each card includes:

Figure 1. Sample extracted from  
THE PORTAGE GUIDE TO EARLY EDUCATION: INSTRUCTIONS AND CHECKLIST  
(Experimental Edition)

Cognition (continued)

Age Level	Card No.	Behavior	Entry Behavior	Date Achieved
3-4	53	Builds tower of ten blocks		
	54	Builds a bridge with 3 blocks in imitation		
	55	Builds with blocks in detail, in imitation		
	56	Copies letters M and N		
	57	Adds one part to incomplete man		
	58	Identifies big and little		
	59	Completes six piece puzzle		
	60	Draws a square in imitation		
	61	Matches three primary colors		
	62	Identifies primary colors		
	63	Counts to five in imitation		
	64	Identifies ten body parts		
	65	Identifies boy and girl		
	66	Identifies heavy and light		
	67	Recognizes stories		
	68	Finger plays/words and actions		
	69	Repeats 3-4 numbers		
	70	Names or points to three shapes		
	71	Names action pictures		
	72	Counts ten objects		

- The behavior as stated on the checklist.
- A behavior description of the item including criteria for success. Unless otherwise stated, the child should exhibit the behavior consistently before credit is given.
- A list of activities or curriculum ideas on how to teach the behavior.
- Suggested materials to teach the behavior.

Many cards are cross-indexed and refer the instructor to cards in other categories which may suggest prerequisite earlier skills or additional activities. (Figure 2 on the following page exhibits sample curriculum cards.)

The checklist and curriculum cards reflect a strong underlying philosophy that has shaped the Portage Project's goals:

The staff is not concerned with labels or IQ scores. The concern is the individual child. Knowing that a child is mongoloid, or has an IQ of 50, does not tell a teacher what the child can already do, nor what to teach next, nor how to teach it. Each child is provided with what it is believed all children should have--an individualized curriculum based on his present behavior, not on his disability.

Weekly prescriptions break each long-term goal (a behavior on the checklist) into smaller, more manageable behaviors. Individually-paced instruction is the key to program success: if a child cannot meet expectations specified in the prescriptions, staff feel that the Project has failed, not the child.

#### THE HOME VISIT

The Home Teacher visits the family with three to four prescriptions per week; she brings the materials needed to carry out these activities. The Teacher collects baseline data on each new task to determine how close the child is to success. For instance, an activity such as hopping in place five times may be tried out several times. If baseline data indicate that the task is too difficult and success is unlikely within a week, the prescription will be revised. The Home Teacher goes back to a prerequisite skill and assigns hopping in place five times with support.



Figure 2. Sample Curriculum Cards

Portage Project

AGE 2-3

CARD NO. 47

COGNITIVE

TITLE:

Stacks 5 rings on a peg in order

BEHAVIORAL DESCRIPTION:

The child will be able to stack 5 rings on a peg according to size in imitation of an adult.

SUGGESTED ACTIVITIES AND MATERIALS:

1. Begin with 2 rings of different sizes. You place each ring on the peg saying "first this one, and then this one." Remove the rings from the peg and have the child imitate your placement.
2. Add additional rings one at a time as the child consistently succeeds.
3. Place the rings on a table in a line in order according to size. Then

(over)

mix them up, and have the child find the biggest one, then the next biggest and so on.

4. Help him compare sizes by telling him "this one is bigger than that one," using the biggest and smallest rings. Gradually add the rings in between.
5. See card No. C25, M47.

Portage Project

AGE 0-1

CARD NO. 25

COGNITIVE

TITLE:

Places rings on pegs (no order)

BEHAVIORAL DESCRIPTION:

The child will place rings over peg in random order, with instructions.

SUGGESTED ACTIVITIES AND MATERIALS:

1. Show the child how to put the rings on a peg by placing one on slowly yourself.
2. Guide the child's hands helping him place the ring on the peg. Reward and praise the child as you work.
3. Work with rings with large openings so the child can more easily place them on the peg.
4. See Card No. M47.

Each task is demonstrated to the parent (usually the mother) and specific teaching instructions--clues, commands, rewards--are written down. The prescription also specifies the length of the activity and the number of trials per day. The Home Teacher then observes the parent working with the child and may provide helpful comments on amount or intensity of praise, number and kinds of cues, interfering or confusing gestures, placement of objects and rewards. The mother stays with the Home Teacher throughout the session, since the visit is designed to show her how to teach, record, and reinforce the prescribed behavior.

When the Home Teacher returns the following week, she records post baseline data on the previous week's activities. This helps ensure that the parent is recording accurately and that the child is, indeed, ready for the next skill.

#### SUPPORT SERVICES

The Project is viewed as an instructional program, not a social welfare agency. Extreme caution is exercised by staff to ensure confidentiality of their information about the family, and under no circumstances will the Home Teacher divulge information about Portage families without their consent. These policies are enforced to maintain a healthy parent-Teacher relationship--one of trust and confidence.

Portage staff, however, attempt to coordinate services for children and their families provided by community agencies. An effective communication system has been developed with county health nurses, county welfare services, university hospitals and clinics, Central Wisconsin Colony, parent organizations, and the State Department of Public Instruction. Teachers work with these agencies to secure needed services.

Particularly critical links have been established with physicians and clinics. Home Teachers frequently accompany parents and their child to appointments for diagnostic or follow-up services. They help parents interpret physicians' diagnoses and prescriptions and, where appropriate, incorporate them into their own prescriptions. Such visits have resulted in a mutually beneficial exchange of information between Portage and medical personnel. Further, physicians and diagnosticians have become interested in the techniques used by the staff and the results obtained.

## DISSEMINATION AND REPLICATION

The Portage Project is probably unique in its combination of a home-based approach to preschool education for the handicapped with a precision teaching model, but it hopes to become less so. The Project's resource team, consisting of the Project Director, a Training Coordinator and a part-time Evaluation Coordinator, is conducting replication, training and dissemination efforts on the local, state, and national level.

### ● Replication

Two programs funded by BEH--in Texas and New York--are now replicating the Portage Project, and will be using the precision-teaching system in home-based settings. Portage resource staff have been consultants to these programs during start-up. The Portage model is also being replicated in the State of Wisconsin under the auspices of other CESA districts, local school districts, and the Bureau of Mental Retardation. To facilitate replication, Portage has been asked to develop guidelines and a program model, and to conduct pre- and in-service training for staff.

### ● Training and Technical Assistance

Portage staff are conducting training programs for many direct-service agencies in Wisconsin. In-service training for Head Start and other day-care programs include two-week workshops in developmental and learning theory, behavior modification methods, administrative procedures, and the use of a variety of educational materials and recording devices. Training for Head Start personnel will be provided throughout the year. Other training programs focusing on precise behavior management techniques are being conducted for various university and community agency staff with professional interest in this area. Finally, primary school teachers will attend four workshops in the CESA 12 area throughout the year. These workshops will provide information and skills to facilitate the entry of young handicapped children into regular school programs.

### ● Dissemination

Portage staff have frequently been called upon to make presentations on the project before local and national service groups and community agencies, including the Association for Retarded Children, school administrators, university

classes, county health nurses, professional organizations, and the President's Committee on Mental Retardation. The presentations, which often feature a slide/tape show developed by Portage, are intended to promote an understanding of the Project's objectives and techniques and to secure community support for the program. Newspaper articles and other media packages have also been prepared by staff to provide interested professionals with information about the program's progress.

PART THREE:  
NOTABLE FEATURES

Portage staff spend only an hour and a half per week with a child and, understandably, people ask "Is that enough time?". Obviously, it isn't. What really counts--and what is notable about the program--are the procedures developed by the Portage staff to train parents to become their children's educators. Portage is not just a home-based program, but an ongoing program in the home where parents learn to set realistic behavior goals for their children and acquire the skills and techniques required to meet those goals. Parents spend at least fifteen minutes per day, every day working with their children on specific behaviors prescribed to insure success for both the parent and child.

PRECISION TEACHING MODEL

The precision-teaching/behavior modification model enables parents to act as the primary teachers of their children in a systematic way. The model is a set of sequenced steps to be followed by parents and Home Teachers which includes:

- Pinpointing behavior objectives.
- Recording baseline data for each objective.
- Using appropriate reinforcement techniques when teaching each behavior.
- Precise scheduling for each task to be learned.
- Recording post basal data to determine whether or not the behavior has been accomplished.

Resources used by staff and parents to carry out this individualized sequenced model include the behavioral checklist and curriculum cards described earlier and a set of interlocking recording and reporting procedures that specify what skills are to be taught, when and how they are to be taught, and what skills have already been acquired. Recording and reporting instruments include:

- Daily Activity Chart

The heart of the system, this chart (Figure 3), prepared by the Home Teacher, describes in behavioral terms the goal to be accomplished, how often the skill

is to be practiced, what and how to reinforce. The chart is used by the parent to record behavior each day for each prescription. Three to five charts covering several of the five developmental areas will be kept by the parents each week. The chart has proved particularly helpful in allowing parents to see daily changes in their child's behavior--changes they have produced.

- Weekly Progress Report

Completed by Home Teachers after each visit, this report serves as both a validation check and a planning mechanism. Post baseline data is recorded and credit is given for behaviors the child has accomplished. The validation check, in turn, is the basis for planning prescriptions for the following week--whether new or repeated activities. Other home visit activities, parents' comments and additional information are also recorded on the report to complete the weekly assessment of the child's status.

- Behavior Evaluation Log

Information recorded on the above formats is then summarized and entered on an ongoing behavioral log sheet (Figure 4) which lists the specific goals prescribed for each child and the data prescribed. When a child has mastered the skill, whether within a week, two weeks, or longer, the date accomplished is recorded. The format serves as a data base for evaluating the child's progress and can also be a guideline for identifying problematic developmental areas and planning future instructional emphases. This progress log has also proved invaluable in facilitating the transfer of children to classroom settings.

While these three instruments, in and of themselves, do not constitute a notable feature of the program, the activities associated with their use--establishing goals, writing specific objectives, demonstrating, teaching, recording results and evaluating progress--are the component parts of the Portage Precision Model that can and are being used to teach parents as well as professionals and para-professionals to teach young handicapped children.

Figure 3. Sample Daily Activity Chart

Child's Name Roger  
 Home Trainer's Name Pat  
 Week of Oct 26

BEHAVIOR:

Can name 4 farm  
animals when  
shown picture.

ACTIVITY CHART

Number of Times

2

P.M.

duck

0

x 0

horse

x

x

x

x

cat

x

x

x

x

dog

x

x

x

x

Mark

x - if he does

0 - if he does not

A.M.

duck

x

0

0

horse

x

x

x

cat

x

x

x

dog

x

x

x

DIRECTIONS:

1. Put the three animals Roger can name in front of him -
2. Have him name each one as you point to it.
3. Place 4<sup>th</sup> animal out: name the animal -
4. Have Roger repeat it. continue until he can name
5. the 4 animals on command. Praise each correct response.

T F S S M T W T  
 DAYS

Figure 4. Sample Behavior Evaluation Log

Portage Project


BEHAVIOR EVALUATION

Period                     

Child Roger Sept.

Trainer Pat Oct.

Specific Goal	Date	Date Accomplished						
6 piece fish puzzle w/o help	9/11				9/28			
pounds peg board	9/21							
washes hand & face w/ help	9/28					10/5		
stacks 3 blocks w/o help	9/28				10/5	10/5		
points to pig	10/5		10/12					
horse	10/5		10/12					
cow	10/5		10/12					
string lg. beads w/o help	10/12				10/26			
pt. to & name 5 body parts	10/12			10/26				
names 4 animals - horse	10/31		10/31	10/31				
dog	10/31		10/31	10/31				
cat	10/31		10/31	10/31				
duck	10/31							
place O & □ in form board	10/31		10/31					
3 sep. 1 step directions	10/31							
scribble w/ crayon	10/31							
Total								



14

Cognitive  
 Communi-  
 cative  
 Motor  
 Self-  
 Help  
 Sociali-  
 zation  
 Child  
 Parent/



PART FOUR:  
PEOPLE IN THE PROGRAM

STUDENTS

Student Demographics

The Portage Project presently serves 65 children from birth to six years of age (mean age of current enrollees falls between three and four years). To qualify for the Project, a child must exhibit at least a one-year lag in developmental age and must live in a school district which financially supports the Project. No child is too severely handicapped for admission. The primary handicap of nearly half the current students is mental retardation, while approximately one-fourth have speech and language problems and another fourth are physically handicapped. Other handicapping conditions are behavioral problems, cultural deprivation, emotional disturbances, and hearing and vision impairment. Many children are either multiply or severely handicapped. However, Project staff do not classify children by handicapping condition or I.Q.; their teaching methods remain the same, no matter what the child's intelligence or disability.

Recruitment and Selection

Children are referred to the program by physicians, local guidance clinics, hospitals, speech therapists, public schools, and county health nurses. The latter have been particularly valuable since they receive periodic lists of all high-risk babies born in their county. In some cases, friends and neighbors refer a family to the Project, or parents themselves may respond directly to public service announcements and newspaper articles used to familiarize the community with Portage services.

An Early Childhood Roundup referral fact sheet is submitted to the Project by the person or agency making the referral. The fact sheet includes only basic parent contact information such as name, telephone number, child's problem, and, most critical in a rural area, directions to the home. All referral sources are confidential.

Once a referral is made, a Home Teacher contacts the parent to explain what services the program offers. The Project is not labeled as a handicapped program, but as a preschool training program that may help the child who has caused special concern. Parent reaction is sometimes enthusiastic, sometimes reluctant, rarely adamantly negative. Whatever the response, staff try to schedule an initial home visit to further discuss the program. If the parents are unsure, admission to the Project is offered on a trial basis. Once the parent consents, a standardized battery of evaluative tests is administered in the home by the Home Teacher, with test and interview results recorded on an Initial Home Visit Report which is submitted to the Project Director along with recommendations for admission.

#### Placement and Follow-Up

Children leaving the program are usually placed in the public schools in regular or special-education classes. When an appropriate special-education class is not available, the school district arranges to purchase services from a nearby district. Some children have also been placed in community day-care programs; only one child has been placed in an institution. Those leaving the program since the end of the 1971 academic year were placed as follows:

- 19 children graduated to other programs which would not accept them before.
- 5 children were placed in special-education classes.
- 26 children had progressed sufficiently to be enrolled in regular nursery schools, kindergartens or day-care programs for the coming school year.

To make sure that each child's training and new behaviors are carried over into the school setting once the child has left the Project, Home Teachers work closely with school administrators and teachers to plan the transfer of Portage children into the public school system. This year, several Home Teachers were hired part-time by some of the school districts to facilitate the transition. These staff work in the classroom to help teachers monitor the progress of Project children and to assist other children with developmental needs.

Another Project concern is loss of child progress during the summer when the program closes down. At the end of the academic year, parents are given a record of the behaviors their child acquired during the nine-month session. This record has been used informally by parents as a guideline for summer activities: many continued to work with their children on prescribed activities. As a result, tests given to the children in May and September indicated no overall change or decline in the children's performance.

#### STAFF

The direct-service component of the Portage Project is currently staffed by three professional and two paraprofessional Home Teachers under the supervision of CESA's Director for Special Education. Three teachers are full-time: two work approximately half-time in the Portage Project and part-time in public schools. Full-time Home Teachers carry a caseload of between 13 and 15 children each, work a 55-hour week, and are involved in all phases of the program operations including recruitment, screening, and evaluation of prospective clients as well as student placement and follow-up.

A resource group composed of the Project Director, a Training Coordinator, and a part-time Evaluation Coordinator, also plays a vital role in the Project's operations. Formerly supervisors for day-to-day operations, this team is now primarily responsible for carrying out the training and dissemination effort. They continue, however, to provide guidance and direction, and to participate in the planning, evaluation, and in-service training aspects of the program. This staffing pattern reflects a reduced administrative and supervisory input into the direct-service operations now that the program has matured, staff have been fully trained, and program costs have been assumed by local sponsors. The shifted responsibilities of the Director and the two Coordinators underscore the program's evolution with a new emphasis on dissemination.

The CESA 12 Coordinator and Special Education Director are responsible for overall administration of the Portage Project. The Special Education Director is specifically responsible for coordination of the Portage Project with the Early Childhood Speech Project, a Portage spin-off focusing on speech and

language therapy for preschoolers which is also under CESA 12 administration. The Special Education Director is also responsible for the placement of Portage children in the public school system and serves as a coordinating link with local schools and the State Department of Public Instruction, Division for Handicapped Children.

Additional staff currently available to the core staff include a consultant from the University of Wisconsin at Milwaukee and a CESA Advisory Council composed of school superintendents. The University Consultant has been involved with the program since its inception in 1969 and has provided technical assistance for staff training and curriculum development. The CESA Advisory Council is a critical link in communications with local school districts and consults on student placement in public schools and continued local funding.

#### Recruitment and Selection

The Project Director recruited both Home Teachers and the coordinating staff. Recruitment has been no problem since many applications are received each year and other recommendations are made as needed through the public schools or personal contacts. The latter have been most effective in this rural area where Home Teachers must live in or near the districts they serve.

Professional Home Teachers are required to hold B.A.'s in special education in order to receive State reimbursement for salaries: the Project's three professional teachers have M.A.'s. The State requires that paraprofessionals have either a high-school diploma and three years of college or work experience with children or a combination of these. The Project Director stresses the importance of certain personal qualifications over academic credentials. He emphasized independence, aggressiveness, imagination and decision-making abilities, since these Teachers are on their own during the week and are, in fact, their own supervisors. Firmness, resourcefulness and patience are all put to the test by emergencies, uncooperative parents, disruptive siblings, and occasional crisis situations in the home. Also necessary are good driving skills and the physical stamina to cover CESA's broad area (an average of 90 to 100 miles a day on back roads) during Wisconsin's severe winters.

### Pre-Service Training

All staff must participate in pre-service training, although the type and length of training have changed as needs have changed. The Training Coordinator, together with the Project Director and Evaluation Coordinator, has developed an intensive training regimen using extensive pre- and post-tests to measure training program effectiveness and trainee skill acquisition.

Prior to the staff's first home visits, the Home Teachers participated in a three-month graduate credit course entitled "Curriculum Planning for Preschool Handicapped Children" given by the consultant from the University of Wisconsin for Portage staff and 10 other community teachers. The course focused on the translation of sequential development norms into a convenient, easy-to-administer behavioral checklist and a corresponding set of curriculum cards. A specific Portage-oriented two-week pre-service training session was also conducted to instruct teachers in the use of evaluation instruments, assessment techniques, precision teaching methods and behavior modification techniques. Devices such as closed-circuit television were used so that tests administered to a volunteer parent and child could be simultaneously scored by a psychologist and the Home Teachers for comparison.

During the second year of operation, paraprofessionals were introduced into the program and a second two-week intensive orientation was conducted by professional Home Teachers--now experienced in all aspects of the home teaching model. Many non-direct teaching techniques were used to develop skills in testing, interviewing, evaluating, and in dealing with difficult, hostile, or unaccepting parents. Classroom instruction and simulated visits were followed up with on-site home visits in which trainees, observed by professional staff, administered tests which were later scored independently by both the old and new teachers for comparison and evaluation. Professionals continue to work with paraprofessionals to supervise prescription-writing and other tasks.

### In-Service Training

One day each week, Home Teachers and Speech Therapists review the week's activities with the Project Director and Coordinators. Initially, these training sessions consisted of a systematic review of each child in the program and an

evaluation of prescriptive effectiveness. A team approach was used to help new teachers with precision teaching and prescription writing techniques. Now, discussions are narrowed to isolate critical problems and write prescriptions suggested by the group to hopefully resolve problems. Records on the success or failure of such team problem-solving prescriptions are systematically filed to become, over time, an index of in-service training success.

These "brainstorming" sessions are used not only to solve problems but also to hone staff skills and promote a very fruitful exchange of expertise among the Speech Therapists and the Portage Home Trainers. All staff work together as a team or in small groups to review techniques, discuss prescriptions that failed and jointly work out procedures that will succeed.

#### PARENTS

The socio-economic class of Project families ranges from poverty to middle-income level. Approximately 65 percent of the families live on farms; the remainder live in or near small towns. A few families are single-parent, and in a few cases both parents work outside the home. To accommodate these situations, Home Teachers try to schedule after-work or after-dinner sessions. Involvement of fathers in the program varies greatly, but teachers try to take advantage of the father's presence in the home during vacations or sick leave and to include him in prescribed activities.

Parents are obviously vital to the Project, since they are the primary educators of their children. They are encouraged to contribute curriculum ideas and teaching methods, and the Project staff listens. Staff stress that the parent knows the child best, and has had months or years of experience in knowing which reinforcers work, how easily the child is distracted, and so on. Further, Portage staff believe that the home model provides parents of handicapped children with the experience and satisfaction of working with the child and seeing him or her succeed as a result of their own efforts. Parents can and should learn to toilet-train a child, teach a child to crawl or teach size discrimination--all of the things that occur developmentally in non-handicapped children.

In line with these convictions, Portage staff will soon begin training a selected number of parents to assume many of the teachers' responsibilities. Parents will learn to plan and sequence curriculum for their child as well as teach specific skills. They will have all the materials used by teachers at their disposal, as well as tests and assessment devices. Weekly home visits will continue until each parent demonstrates proficiency in successfully planning and carrying out her weekly prescriptions.

The Project sponsors three or four parent meetings each year, following an agenda set by the parents themselves, and Home Teachers bring together parents in their geographical areas on an as-needed or requested basis. Parents also meet informally with one another to discuss similar problems and concerns. For example, several parents have actively lobbied for local school board support of the Portage Project. Their commitment is evidenced by participation at school board meetings and their correspondence with State and national congressional representatives.



PART FIVE:  
PROGRAM EVALUATION

Assessment procedures for child, parent and Home Teacher performance and for the prescriptive curriculum are built into the precision teaching model and the data instruments used daily and weekly to record measurable behaviors.

- Children

Children are pre- and post-tested annually with a battery of standardized tests. Their progress in skill acquisition is recorded daily and reported and logged on a weekly basis. Data collected indicate that the children succeed on 91% of the prescriptions written.

- Parents

Frequency with which parents record children's behaviors during daily trials and post baseline data are used to evaluate parent performance and involvement. Data indicated that parents record, on the average, 92% of the time. Weekly anecdotal comments by parents on prescribed activities and outcomes are used to assess Home Teacher performance, effectiveness of the prescriptions, and child progress. Parents are also periodically asked to respond to a brief questionnaire conveying their opinion of the Project. This instrument is used to assess parents' perceptions of the program and their children's progress.

- Home Teachers

Each child's progress report is an indicator of Home Teacher performance: the degree to which a child can master prescribed tasks within the prescribed time period is an informal measure of Home Teacher effectiveness. Home Teachers' prescriptions and the child's successes and failures are closely monitored by the Project's resource team. Home Teachers' ability to administer and score standardized batteries of tests was evaluated during pre- and in-service training. A psychologist and the Home Teachers simultaneously scored the same children, with results indicating a positive correlation of .86.

One formal evaluation of Portage children included 57 handicapped preschoolers who were evaluated on admission and again at the end of the nine-month teaching year to determine the increase in developmental level. Each child was given a



series of intelligence tests and behavioral evaluations which quantitatively measured mental development, language and speech development, physical development and interpersonal processes. This information was organized into an evaluation device, the Early Childhood Evaluation (E.C.E.) Scale. Still in an experimental stage, the Scale was adapted for computer processing with all information contained on seven data cards. The results of the pre- and post-test evaluation are displayed on the accompanying table and graph.

The results indicated statistically significant gains in mental development, language and speech development, and all areas of the teaching program measured by the E.C.E. Scale. No control was provided for the effect of maturation, and some percentage of the gains must be attributed to maturational effects. However, the magnitude of the gains was considered far beyond the normal maturational effects in any type of population.

The average I.Q. of the children in the Project was 75 as determined by the Cattell Infant Test and the Stanford-Binet Intelligence Test. Therefore, it would be expected that on the average, the normal rate of growth would be 75 percent of that of the child with normal intelligence. Using mental ages, one would expect that the average gain would be about 6 months in an 8-month period of time. The average child in the Project gained 13 months in an 8-month period; he gained 60 percent more than his counterpart with a normal intelligence.

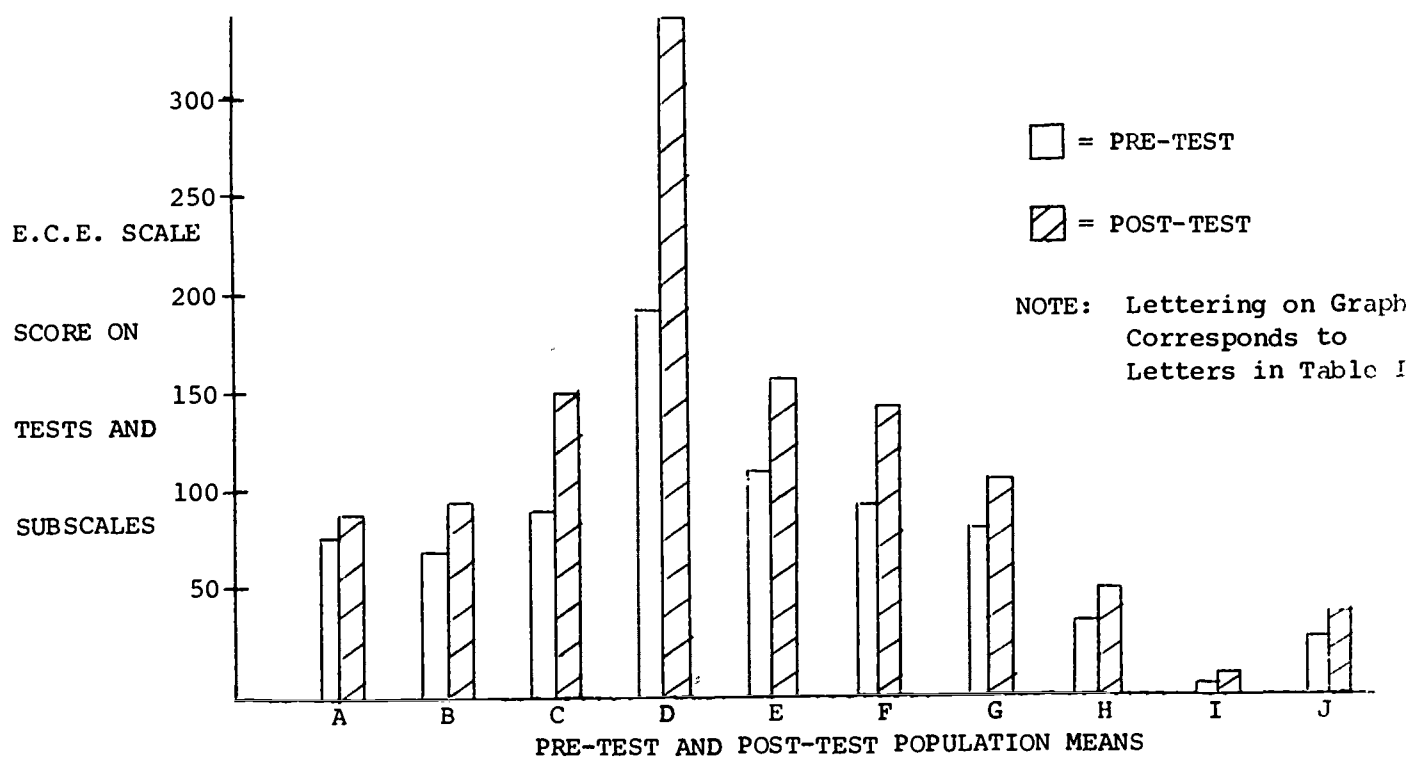
Another study was conducted to evaluate the effectiveness of the Portage Project using a control group. Children were randomly selected from the Project and from local classroom programs for culturally and economically disadvantaged pre-school children.

The Stanford-Binet Intelligence Scale, the Cattell Infant Scale, and the Alpern-Boll Developmental Skills Age Inventory were given as pre- and post-tests to both groups. In addition, the Gesell Developmental Schedule was given as a post-test to both groups. Multiple analysis of covariance was used to control for I.Q., practice effect, and age. The greater gains made by the Portage Project children in the areas of mental age, I.Q., language, academic development, and socialization were statistically significant as compared to the group receiving classroom instruction.

Using the children as their own control, test results and behavioral gains were compared and measured. The mean gain in I.Q. scores on the Alpern-Boll Developmental Skills Age Inventory was 13.5 and was statistically significant beyond the .01 level. The mean gain in I.Q. scores on the Stanford-Binet was 18.3 and was statistically significant beyond the .01 level.

TESTS AND SUBSCALES	POPULATION MEAN ON INITIAL EVALUATION	MEAN GAIN ON YEAR END EVALUATION
A. Alpern-Boll Test	80.3	13.5
B. Cattell-Binet Test	77.1	18.3
C. Preschool Subtests	85.6	60.7
D. Communications Subscale	196.1	139.3
E. Speech Subscale	116.6	42.2
F. Coordination Subscale	89.1	52.9
G. Mother-Child Interaction Subscale	74.7	20.4
H. Social-Isolation Subscale	32.7	13.5
I. Cooperation Subscale	3.5	4.3
J. Teacher-Child Interaction Subscale	25.2	12.4

Table I: Population means on the initial evaluation using the E.C.E. scale and mean gains on the year end evaluation.



GRAPH I: Histogram of population means of E.C.E. Scales tests and subscales or pre-test and post-test evaluations.

PART SIX:  
RECOMMENDATIONS AND FURTHER INFORMATION

RECOMMENDATIONS FOR REPLICATION

The Portage staff and their university consultant believe the home-based precision teaching model can easily be replicated by public or private schools and agencies. As a home-based program, no costly or elaborate facilities are required and the operations can be carried out by a relatively small staff of trainers and administrative support personnel. The staff also stress that the core program--the precision teaching model and associated curriculum materials--can be implemented anywhere: in classrooms, in homes, in institutions, in rural or urban areas. They further stress that anyone can use the teaching model--professionals, paraprofessionals, classroom teachers, or parents. Several recommendations, however, were made by the Project staff with respect to replication:

- It is essential that the program function within an already existing administrative structure such as a large school district that can provide support services and supplementary resources. While a top-heavy administrative structure for the program per se is not necessary, some technical support and guidance must be provided both administratively and programmatically throughout all phases of the program.
- While the home-based model and the precision teaching methods can easily be replicated, they may not function effectively without a strong in-service training program. Portage staff feel that the team approach to problem solving is a critical success ingredient and that programs should, therefore, have more than one Home Teacher.
- Home Teachers work rather autonomously and independently, but there should be some control mechanism to check on their activities. A back-up or support system--in the form of resource personnel--should be established to provide input into problem or crisis situations that need expert attention.
- Portage staff recommend that paraprofessionals not be used as Home Teachers during the start-up phase of the program. They suggest that it is more practical and efficient to fully train professionals first, and then allow professionals to train and supervise paraprofessionals.

- Portage staff strongly urge that professional jargon not be introduced into the home teaching process. Parents need not be presented with technical terms, theories and labels to effectively teach their children.
- Staff feel that their background as educators affiliated with the school system facilitated their entry into homes and presented a less threatening image.

#### FOR FURTHER INFORMATION

For further information about the Portage Project, contact:

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#### MATERIALS AVAILABLE

The following materials are available from the Portage Project:

Project Brochure, free of charge.

Hilliard, Jean, Parental Modification of Communication and Academic Behaviors of Pre-School Handicapped Children.  
Available at cost plus postage.

Shearer, Marsha, An Educational Model: Modifying the Behavior of Pre-School Handicapped Children by the Parents.  
Available at cost plus postage.

Shearer, Marsha, Staff and Training Program - The Portage Project 1970-72. Available at cost plus postage.

Portage Curriculum Guide to Early Education. A charge, but amount unknown as yet.

Persons interested should contact the Portage Project to obtain detailed information regarding costs, new materials available and so forth.

THE RUTLAND CENTER  
ATHENS, GEORGIA

*A model program for children with severe  
emotional and developmental problems  
which uses a psychoeducational approach  
called Developmental Therapy to treat  
youngsters.*

January 1973

Principal Author:  
Judith Platt

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PART ONE:  
INTRODUCTION

OVERVIEW

The Rutland Center of Athens, Georgia, is a model program serving 73 children between two and 14 years of age with severe emotional or developmental problems. Some 23 children, ranging in age from two to eight, are considered preschoolers. The Center's major goal is to decrease the severe emotional and behavioral disorders of children through a psychoeducational treatment process called Developmental Therapy. The therapy uses normal developmental changes to expedite the therapeutic process and normal developmental sequences to guide treatment.

Children are enrolled in one of 11 therapeutic classrooms organized according to five stages or levels of maturity. Specific objectives are established in four curriculum areas--behavior, communication, socialization, and academics--for each developmental level and for each child. Further, the program seeks to integrate the disturbed child into the mainstream of normal experiences. Children attend classes at the Center for only one or two hours a day and from two to five days a week, with frequency and length of participation decreasing as the child moves from class Level I to Level V. At the same time, most children (except those in Level I classes) are simultaneously enrolled in a regular elementary school, kindergarten, nursery, or day-care center.

Rutland Center also conducts a half-way kindergarten both for children who have finished at the Center but are too young for public schools and for preschoolers who need some special attention, but not as much as those in therapeutic classes. In addition, the Center operates an Infant Program at the community Well-Baby Clinic, diagnosing infants from three months to two years of age and helping parents plan home stimulation programs to remedy developmental lags.

Besides the child service component, the Center also offers services to parents and a staff training program. The parent services focus primarily upon providing parents with information about the child's progress and needs and assisting parents in implementing a home program. The individualized parent program typically

calls for initial contact and "tuning in", frequent communications and participation, and later, decreasing support and communication as the parent develops necessary coping skills and a realistic understanding of the child. The training component provides for the training of Center professional staff, volunteers, paraprofessionals, student interns, and professionals in the fields of mental health and special education.

The State of Georgia has selected Rutland Center as the prototype for a Georgia Psychoeducational Center Network which is part of a state-wide system of community mental health centers. In order to carry out this effort, the University of Georgia supports a technical assistance office at Rutland Center to train staff at new centers and help them with proposal writing, treatment program planning, staff training, and program evaluation.

#### CONTEXT OF THE PROGRAM

Rutland Center is an outgrowth of the University of Georgia's Special Education Clinic for Disturbed Children, established in 1964 by the Project Director as a teacher-training program. In 1966, under a new state plan to develop community mental health centers, the Clinic began providing direct treatment as well as diagnostic and family support services in a therapeutic classroom sponsored by the Health Department. At the same time, research and application led to the creation of Developmental Therapy. In 1970, the Project was funded jointly by the Office of Education, Bureau of Education for the Handicapped, and the Georgia Department of Education as a model community-based center centrally locating professional mental health and educational personnel in a cooperative program for psychoeducational service to seriously emotionally disturbed children.

Operations were expanded during the first year to include two satellite programs and to pilot a formalized version of the Developmental Therapy treatment process. First-year success also fostered the idea of using Rutland Center as a model for a state-wide comprehensive psychoeducational center network. To implement the idea, additional funds were secured in 1971 from the Georgia Department of Human Resources. Now in its third year of operation, the Rutland Center continues to offer direct services and training as well as technical assistance to seven network centers already underway and six in the planning stages.



For the 1972-73 school year Rutland Center was jointly funded by the Georgia Department of Education (\$72,000), and the Georgia Department of Human Resources, Division of Mental Health (\$18,000), the State Board of Education (\$91,000), and the Bureau of Education for the Handicapped (\$111,000 administered through the University of Georgia). Per-pupil cost is about \$1,100. All three funding sources also provide extensive personnel and material resources to the Center.

PART TWO:  
NOTABLE FEATURES

THE DEVELOPMENTAL THERAPY CONCEPT

Developmental Therapy is a psychoeducational approach to therapeutic intervention with young children who have serious emotional and behavioral disorders. It is designed for special-education or mental health workers, parents, volunteers, and paraprofessionals to use in a therapeutic classroom with five to eight children in a group. The treatment process is a developmental progression in which the elimination of pathological behavior and the stimulation of developmentally appropriate behavior are closely akin to normal growth. Developmentally suitable experiences are systematically used in the therapy program to stimulate constructive behaviors, particularly when experiences represent small, sequential steps toward normal maturation and development. Similarly, non-constructive behaviors are redirected, outgrown, or extinguished as a child learns more rewarding and satisfying adaptations to his world.

The Developmental Therapy curriculum works in four areas encompassing the range of problems exhibited by disturbed children: behavior, communication, socialization, and academics. Within each curriculum area, maturational sequences and measurable objectives are outlined. The objectives are specific to each curriculum area, while the maturational sequences shown below cut across all four areas.

- Stage I:      Responding to the Environment with Pleasure
- Stage II:     Responding to the Environment with Success
- Stage III:    Applying Individual Skills to Group Procedures
- Stage IV:     Valuing One's Group
- Stage V:      Applying Individual and Group skills in New  
                         Situations

A chart (Figure 1) displaying the goals for each curriculum area at each stage of therapy appears on the following page.

FIGURE 1. DEVELOPMENTAL THERAPY GOALS  
FOR EACH CURRICULUM AREA AT EACH  
STAGE OF THERAPY

BEHAVIOR	COMMUNICATION	SOCIALIZATION	ACADEMIC SKILLS
S T A G E  I  To trust own body and skills	To use words to gain needs	To trust an adult sufficiently to respond to him	To respond to the en- vironment with processes of classification, dis- crimination, basic re- ceptive language con- cepts, and body coordi- nation
S T A G E  II  To successfully participate in routines	To use words to affect others in constructive ways	To participate in activities with others	To participate in class- room routines with lan- guage concepts of sim- ilarities and differen- ces, labels, use, color; numerical processes of ordering and classifying; and body coordination
S T A G E  III  To apply indivi- dual skills in group processes	To use words to express oneself in the group	To find satisfac- tion in group activities	To participate in the group with basic ex- pressive language con- cepts; symbolic repre- sentation of experiences and concepts; functional semi-concrete concepts of conservation; and body coordination
S T A G E  IV  To contribute individual effort to group success	To use words to express awareness of relationship between feelings and behavior in self and others	To participate spontaneously and successfully as a group member	To successfully use signs and symbols in formalized school work and in group ex- periences
S T A G E  V  To respond to critical life experiences with adaptive-construc- tive behavior	To use words to establish and en- rich relationships	To initiate and maintain effective peer group rela- tionships indepen- dently	To successfully use signs and symbols for formalized school ex- periences and personal enrichment

### Stages of Therapy

Stage I: The Level I child does not trust his surroundings or himself. He is unresponsive, out of contact with reality: he may retreat into helplessness or act out in rage. The goal of treatment is to arouse and mobilize the child to respond to the environment, to trust the therapist, and to trust himself. Experiences selected for these children emphasize sensory arousal: materials are large and concrete, the room is decorated with reds and pinks. The routine is always simple and predictable: the schedule includes many short activity periods such as work, snack, story, recreation, special events, and art. Activities are planned to move the child from diffuse to selective responding. The therapist must always be in complete control of herself, her voice, her body language, her vocabulary. She acts as a reflector, verbalizing concrete experiences. Intervention is constant as the teacher redirects inappropriate behavior and reinforces appropriate actions. (Participation: 2 hours per day; 5 days per week.)

Stage II: At this level, where children are responding to the environment but without a great deal of success, the goal is to increase each child's feeling of self-confidence and sense of personal success by redirecting old behaviors to successful outcomes. The therapist's role during this stage is defined as the predictable point of reference, reflecting success and maintaining limits while encouraging exploration. Considerable physical intervention is still required. Materials used are like those of Level I. Simple group experiences are set up to encourage group participation. (Participation: 2 hours per day; 4 days per week.)

Stage III: This level represents a shift from extrinsic to intrinsic control as children begin to assimilate the results of new skills and experiences. The child learns to tolerate some failure and to use the failure as learning for future success. Class activities take on a group emphasis. Less structure is required to elicit participation, and the group is encouraged to develop and maintain its own rules and consequences. Activity periods are fewer but longer as attention spans have increased. Materials are less concrete and require more imagination and creativity. The therapist functions as the group leader, the adult who can recognize and reflect real success. She is now the reflector of feelings rather than actions, and intervention, although frequent, is verbal rather than physical. (Participation: 3-4 days per week; 1-1 1/2 hours per day.)

Stage IV: Children at this stage need a less clinical, contrived environment and a more reality-oriented one. Their skills in the four curriculum areas are adequate: the task now is to enlarge their capacity to function effectively with peers and adults with the ordinary rules, constraints, freedoms and consequences children experience when away from the Center. Students work on implementing alternate behaviors and expressing relationships and feelings. The teacher is still a group leader, but she is also a counselor and reflector of reality. Intervention is less immediate: students are encouraged to work out their own problems and to discuss things in a group. Activities are planned by the students. Field trips and role plays allow the children to apply new skills in different situations and to try out new behaviors in a supportive atmosphere. (Participation: 2-3 days per week; 1 - 1 1/2 hours per day.)

Stage V: Level V classes are rarely held at the Center, since its objectives are better accomplished in normal school and home settings. General goals and objectives of Developmental Therapy at this stage are used to help the school focus on individual strengths and abilities and to plan ways to continue remediation in deficient areas. The Center therapist acts as a consultant during this follow-up phase. (Participation: 1-2 days per week at Rutland Center or in school; 1-1 1/2 hours per day.)

#### Representative Objectives

The representative objectives of Developmental Therapy are 140 general statements outlining a series of developmental milestones stated as treatment objectives. When mastered, they provide a foundation for normal development. Specific objectives are selected from the list by the treatment team to define the central focus of treatment for each child during a given time period. At least one, and no more than four major focus objectives are used for each of the four curriculum areas with each child during a five-week period. The objectives are selected sequentially, and previous objectives must be mastered before new ones are initiated. A sample page of objectives follows.

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## SOCIALIZATION

### Level 1 - Socialization Goal - TO TRUST AN ADULT SUFFICIENTLY TO RESPOND TO HIM

1. to be aware of adult (Child looks at adult when adult speaks directly to child or touches him)
2. to attend to adult's behavior (Child looks at adult when adult is not focusing on child directly)
3. to respond to adult when child's name is called (Child looks at adult)
4. to respond to adult's verbally initiated request to conform (Child follows adult's verbal direction with correct physical movement)
5. to respond to adult's verbal and nonverbal requests to come to him (Child moves next to adult and looks at him; and child accepts adult's touch)
6. to seek contact with adult spontaneously (Child moves next to adult and touches him)
7. to produce a recognizable word to obtain a desired response from adult (Same as Communication #5)
8. to produce a recognizable word to obtain a desired response from another child (Same as Communication #6)

### Level 2 - Socialization Goal - TO PARTICIPATE IN ACTIVITIES WITH OTHERS

9. to engage independently in organized solitary play
10. to exhibit a beginning emergence of self (indicated by age approximate human figure drawing; use of personal pronoun, I, me, my, or looking at self in mirror) (Same as Communication #7)
11. to produce a meaningful, recognizable sequence of words to obtain a desired response from adults or children in the classroom (Same as Communication #8)
12. to participate spontaneously in specific parallel activities with another child using similar materials but not interacting
13. to wait for his turn without physical intervention by teachers; verbal support may be used (Same as Behavior #11)

PART THREE:  
PROGRAM OPERATIONS

THE CLASSROOM

Children approximately the same age are grouped in each classroom according to their Developmental Therapy level. They are assigned to a group on the basis of developmental objectives already achieved, the amount of intervention needed, and communication ability. The regular program year is divided into 10-week fall, winter, and spring treatment quarters. The Center also offers a six-week summer session. Children may be enrolled at the beginning of each quarter and up through the fifth week of the session (third week in summer). All classes are restructured at the end of each quarterly period when children are placed in a new group setting according to developmental objectives accomplished. New focal and secondary objectives are formulated for each student and an individualized program is laid out.

All students except those enrolled in Level I classes spend the remainder of their day in regular public or private educational programs (most are enrolled in elementary schools or day-care facilities). The simultaneous enrollment policy was established for three reasons. First, the regular school classroom provides the child with exposure to "normal" behavior, thus allowing the normal aspects of the disturbed child's behavior to continue to mature. Secondly, the regular class offers the child a different situation in which to generalize behaviors acquired at the Center. Finally, Center staff feel that successful school experience can reinforce a child's strengths and can help erase deficiencies.

Removing a disturbed child from his regular school setting can be detrimental to his growth. On the other hand, if the child could have learned how to correct maladaptive behaviors from normal children, he probably would have done so within a reasonable period of time. The Center has necessarily established itself as a separate program due to the fact that many of the techniques used at the Center may be contrary to school rules or disruptive in a traditional class setting.

### Follow-Through

The Center operates a strong follow-through program carried out by its lead teachers to strengthen the relation between the child's regular school teachers and his Rutland team so both settings can cooperatively reinforce his progress. The child's Center teacher visits him in his regular class each week and exchanges information with his teacher about the child's adjustment in both classes. The Center also encourages the regular teacher to observe its classes and to become familiar with therapy objectives and techniques. Emergency consultation and intermittent support after the child leaves the program are also provided.

### HALF-WAY KINDERGARTEN

In a sense, another form of follow-through is the Rutland Center's half-way kindergarten. Since kindergarten is not compulsory in Georgia, the Center has a small class for youngsters who have graduated from the program but are not old enough for first grade, and for children with problems which are not severe enough to warrant placement in Center classes but do require attention. The class offers its students the special attention they still need and serves as the supporting link between enrollment at the Center and entrance into an elementary school.

### INFANT PROGRAM

Rutland Center also operates an Infant Program at the Public Health Department's Well-Baby Clinic. The program is staffed by an infant evaluator, a parent worker, and a volunteer who work as a team at the Clinic. The Gesell Developmental Schedules are used to evaluate infants from three months to two years of age. Mothers are included in the evaluation process and are also taught some basic concepts about child development and parent-child interaction. If a developmental lag is discovered, the mother is shown how to carry out a home stimulation program. Regular follow-up is done monthly.



## FIELD CENTERS

Three field centers have been established in outlying counties to bring direct services into rural areas, thereby reducing the need to transport children long distances. Jointly sponsored by the Mental Health Department and Rutland Center, the centers are housed with three Special Education Shared Services programs in county school districts. These cooperative outposts were designed to pool personnel resources, provide a single referral process, and integrate the services of Rutland Center, the Mental Health Center and the school systems.

Outposts are staffed by a full-time educational therapist who is a county consultant from Rutland Center, a full- or half-time social worker, and a half-time secretary paid for by the Mental Health Department. Each outpost also has the services of the Center's psychologist one day a week, and all Center clinical consultants are available for back-up.

The outpost program's main purpose is to establish a coordinated referral procedure within the rural school systems and to provide assistance to local school personnel in a variety of ways. Outpost staff, for example, help teachers identify children needing special help. Children are tested for educational and developmental problems and, if needed, a prescriptive program will be implemented. Staff advise parents about their children's special needs and establish community agency contacts for services. Where appropriate, families are referred to Rutland Center or a Mental Health Center.

## DISSEMINATION AND REPLICATION

### Training

All training for outside professionals is conducted by TAPEC (Technical Assistance to Psychoeducational Centers), Rutland's special technical assistance office. Formal training sessions are typically requested by small groups of professionals representing a particular program or organization. On request, TAPEC associates assess the needs of each trainee group, and for those wishing to replicate Rutland's Developmental Therapy Model, a typical program would include:

- A slide show overview;
- Developmental Therapy tapes;
- An overview of the treatment model including child placement personnel roles, school contacts and debriefings;
- Training for each Developmental level including goals and guidelines, observations, video-tapes, debriefings and discussions with the Center treatment teams;
- Discussions of the Parent Program;
- Training on intake procedures including observation at staffings and implementation of data instruments;
- Training in psychoeducational testing; and
- Training in implementation and interpretation of evaluation instruments.

Following each training session, TAPEC staff visit sites implementing the Rutland model to evaluate the effectiveness of the training, to assess further training needs and to provide additional training as required. TAPEC staff also assist in the actual implementation of the program model.

#### Georgia Psychoeducational Center Network

The primary recipients of TAPEC training are personnel from the new psychoeducational centers. Each center, largely autonomous, is governed by a local board composed of district mental health representatives, public education officials, parents and community members. The centers are organized by mental health districts. The long-range goal is to have a center in each of Georgia's 34 districts by 1976. Although not required to do so, most of the projects have replicated all aspects of the Rutland model. To help them, Center staff have produced an extensive manual, The Rutland Center Model for Treating Emotionally Disturbed Children, which provides a detailed description of all elements of the program and an explanation of how to implement them. The Center expects to expand its efforts next year to include national dissemination. Ten sites have indicated interest in replication and will receive assistance similar to that provided to network centers.

Finally, Rutland Center staff are involved in a number of demonstration and dissemination activities including conferences, workshops, and seminars, distribution of printed materials and visits to the Center at the request of local, state, and national agencies, mental health and educational professionals, other programs for emotionally disturbed children, and day-care and public school teachers.

PART FOUR:  
PEOPLE IN THE PROGRAM

STUDENTS

Demographics

During its two and a half years of operation, Rutland Center has treated 63 emotionally disturbed preschoolers. More than half of these children were classified upon entry as having the following primary handicapping conditions: brain damage, aggressive-hostile personality, delayed development or socio-economic deprivation. Most of the children also exhibit one or more secondary handicaps, the most common being brain damage, socio-economic deprivation, learning disabilities, delayed development, or reaction disorders. Generally, the Center accepts any child who is severely handicapped and could not be better served by another program. The only students who are automatically rejected are those outside the program's range, the physically handicapped (blind, deaf, mute, orthopedically handicapped), or the severely mentally retarded when emotional disturbance is not a first-priority problem. More than 60% of the children referred to the Center have been accepted for treatment.

Preschool students (classified as preschoolers by chronological age only) range from three to eight years old; more than half are between five and six and a half at the time of enrollment. Approximately 60% are boys, and 40% are black. Two-thirds come from the middle-sized community of Athens, while the rest live in outlying rural areas. Two-thirds come from two-parent families, and one-quarter to one-third of the children are adopted.

Referral and Selection

Approximately half of the program's referrals come from parents, physicians, social workers, clinics, or community agencies: the rest are made by local nurseries or schools. Once initial contacts have been made, a child's application is subject to three processes--screening, intake, and staffing.

- Screening

The Screening Committee, composed of representatives from social services, psychological services, and educational services, discusses information given on the referral form, decides whether the child should go on to the intake process, and, if a child is accepted, assigns the case to an intake social worker and to the Rutland Center county consultant. If a child is not accepted, the intake social worker or county consultant notifies the referral source and conveys the committee's recommendations for alternative programs.

- Intake

Intake includes a family interview, testing of the child, and an interview with the child's teacher. An hour-long interview is conducted by the intake social worker with the family to establish a bond, obtain general information on the family and specific information on the parents' perceptions of their child's problems, and to make appointments for the child's testing. Each child is tested by an educational diagnostician, a psychologist, and if necessary, a psychiatrist. A county consultant next makes a school contact by interviewing the child's teacher(s).

During this stage, parents, teachers, and staff who have worked with the child all fill out a Referral Form Check List (RFCL) composed of 54 behavioral problems grouped within the four Developmental Therapy curriculum areas. Each behavior item is rated on a five-point scale ranging from "high priority problem" to "not a problem."

- Staffing

When the intake process has been completed, a staffing meeting is held with all staff members who have had, or possibly will have, contact with the referred child. (A regularly scheduled time is set aside each week for staffings.) All the program's data are presented--the school contact report, RFCL profile analysis, parent intake interview results, and results and summaries of prognoses from the psychologist, the educational evaluator, and where applicable, the psychiatrist. The case is then discussed focusing on the needs of the child and family and the help the Rutland Center can offer. If staff feel the child would not benefit

from the Center's program, a Parent Planning Conference and an Educational Planning Conference are set up to relay test results and suggestions for the school, the home, or referral to another agency. If the child is accepted, the process of planning an individual Developmental Therapy program begins at staffing. The staff:

- Determines the child's level of development in each of the four curriculum areas and places him in a class according to his most recent representative maturational level of development;
- Proposes specific developmental treatment objectives for the child;
- Estimates a projected period of treatment to serve as a checkpoint in the evaluation process and to foster in the parents a feeling that although a change won't occur overnight, there is an end in sight; and
- Decides on possible strategies for parent and school intervention.

A Parent Planning Conference and Educational Planning Conference are now held to include parents and teachers in the actual planning and implementation of the treatment program, and to transfer the parents' staff contact from the intake social worker to the treatment team monitor. Specific objectives of the Parent Planning Conference are to discuss the test results and recommendations, establish communication between the parents and the child's team monitor, and to plan the Center and home programs. The Educational Planning Conference, conducted by the child's lead teacher, (in rural areas by the field consultant), meets similar objectives as they relate to the child's regular school teachers.

#### Placement and Tracking

Students leave the Center when they reach the developmental level appropriate for their age: they do not necessarily go through all the therapy levels. The average child attends Center classes for four 10-week quarters. Fifty percent remain in the program for three quarters or less; 95% for eight or less. Sixty-five percent of the graduates were placed in regular elementary classes, and the remainder went to nurseries, kindergartens or special classes. Of the 40 students who have "graduated" so far, only two required re-enrollment.

"Tracking," which begins as soon as a child leaves the program, includes follow-up communication with the child, his parents, and his teachers for support and evaluation purposes. The child and his new teachers are contacted by the child's last Center teacher, while his parents are contacted by the monitor. Tracking lasts for one year, often starting with twice-a-week contact which is reduced to monthly calls after the first eight weeks. At the end of the year, Referral Form Check Lists are again filled out by the child's teachers and parents for final evaluation. Parents and teachers subsequently receive services only on request.

#### STAFF

There are currently 60 people on the Rutland Center staff, of which 75% are full-time employees. Approximately 20% are male and 20% are black. In addition to the regular staff, 13 interns from the University of Georgia train with the Center: nine are graduate students in Special Education, three in Social Work, and one in School Psychology. The Center also continually trains six volunteers from the Athens Junior Assembly to work as support teachers in the lower-level classrooms. After pre-service training, these volunteers are assigned to a lead teacher to learn through observation to imitate her behavior and speech. They then assume the role of full-time support teachers for five weeks. Volunteers are constantly changed to increase exposure to and support of the program by the community.

Rutland Center has three top administrative personnel: The Project Director, the Coordinator of Psychoeducational Services, and the Coordinator of Evaluation. The Director is responsible for the overall treatment program, administration, community contacts and support, the Technical Assistance Office, and dissemination of information about the program. The Coordinator of Psychoeducational Services is administratively responsible for the daily psychoeducational services, working closely with the treatment teams and coordinating the work of all teams in evaluating a child's needs, assigning him to a group, and planning his individualized program. The Coordinator of Evaluation is in charge of evaluating all Center components including services to children and to parents, training, and administration. He is also Coordinator of the Technical Assistance program, supervising TAPEC staff, helping new programs with proposal writing, implementing treatment programs, staff training, and continuing evaluation.

Most of the remaining professional staff are members of treatment teams. Each team, working with up to eight students on a specific developmental level, consists of a lead teacher, a support teacher, and a monitor. This year there are 12 teams at the Center (including the half-way kindergarten), each assigned to one of the five morning or seven afternoon classes.

The lead teacher is experienced in implementing Developmental Therapy and using the data instruments. She usually has a Master's degree in Special Education, but may be anyone who has had extensive training in Developmental Therapy through observation and participation as a support teacher at the Center. The lead teacher provides the central focus in the classroom; initiates group action; is responsible for curriculum planning; and is constantly and actively involved in therapy, assessing each child, and adjusting her techniques.

The support teacher may be an experienced therapist, a paraprofessional, an intern, or a volunteer in training. She must be completely knowledgeable about the developmental curriculum and the goals established for children in the group. The support teacher works as a complement to the lead teacher and is responsible for bringing individual children into the group process. She handles individual crises and maintains children's attention toward the lead teacher.

The monitor is always someone experienced both in Developmental Therapy and parent work and usually has had social casework training. The monitor observes the class daily from the observation room to help her with her functions as parent worker and as the teacher's source of feedback. The monitor plans, arranges and carries out all parent contacts; provides immediate feedback to the teaching team on group processes, individual children's responses, and teachers' techniques; and assists in program planning for the class.

An unusual feature of the Center's staffing pattern is the rotation of staff members. All full-time service staff serve on both a morning and afternoon team, most often in a different position and at a different level. For example, one staff member may be a lead teacher for the Level III class in the morning, and serve as monitor for Level I in the afternoon. Staff are also assigned new positions every quarter according to their preferences and capabilities. This



rotation system prevents staff from becoming bored and their approach from getting stale, and it broadens their understanding of more children and of the therapy itself. Children and parents benefit because this system prevents dependence on individual staff members and promotes individual growth through the experience of change and progress.

The rotating team teaching concept evolved out of staff dissatisfaction during the program's first operational year. At that time, no monitor position existed and the staff roles were isolated: teachers worked with children and social workers worked with parents. The teachers felt they needed more treatment feedback, while the social workers felt they didn't know enough about treatment to adequately serve parent needs. Furthermore, parents began to turn to the lead teachers rather than the social workers for communication. As a result, the Director created the monitor role and instituted a policy requiring that all service staff begin work in the support role and then progress on to the lead teacher and monitor roles to fully learn the Rutland Center model.

#### Staff Selection

Newcomers, regardless of formal degrees or experience, are all subject to the same selection and training system: they must first master Developmental Therapy techniques before they can apply their own special skills as lead teacher, social worker, and so on. Therefore, they are generally hired to fill a support teacher's position. Higher positions are filled by "junior" staff who have demonstrated competency through successful performance in the support role. When new staff need to be hired, educational background is still not an overriding consideration. Center personnel responsible for hiring (the component Coordinators initially, and then the Director) look for qualities such as openness and flexibility, ability to learn and respond, motivation to serve children, warmth and rapport, and the ability to monitor one's own actions.

#### Pre- and In-Service Training

Pre-service training starts with what is referred to as the Universal Training Program. Attended by all staff, new and old, at the beginning of each school year, this program introduces the Rutland Model and its procedures, focusing on the intake process and Developmental Therapy. At the beginning of every quarter,



all treatment staff working with each level also meet to discuss level objectives and sample activities.

In-service training is both a natural outgrowth of the job assignment structure and a major objective of the structure. Each treatment team position fulfills an essential service and, at the same time, acts as prerequisite training for another position. This training is achieved with half-hour preparatory meetings before each class and debriefing sessions afterwards. At the daily debriefings, the treatment team discusses what happened in class and exchange impressions and feelings. The monitor, who is able to more objectively assess the activities from the observation room, provides feedback on general trends in group functioning, appropriateness of materials and activities, the relationship of activities to individual objectives, the quality of teacher verbalizations, the type of physical interactions, emotional reactions, and so on.

Other regularly scheduled meetings also provide in-service training. The entire treatment staff meet weekly to discuss problems and participate in formally planned training sessions. In addition, all staff meet bi-weekly to deal with training issues such as defense mechanisms, how to interpret feelings, or specific handicaps. All new staff and interns are required to attend the weekly staffings as well.

#### PARENTS

Rutland Center's parent activities aim to encourage parents and staff to share information about children, to encourage parent involvement in the program, to stimulate parent interest in child growth and development for more home carry-over, and to provide crisis help at parent request from community agencies. There are several kinds of parent activities offered by the Center and numerous ways these can be combined to create individualized programs for parents.

- Parent Conferences--Weekly appointments with the monitor to discuss child progress at school, home, and Center.
- Parents' Auxiliary Association--An organization (soon to be grouped by levels) run by and for parents which meets one evening a month. Information and feelings are shared, and programs to help the Center are planned and implemented (such as the development of a parent brochure).

- Observation--Learning about the Center's program by observing the class with the monitor through two-way mirrors.
- Home Program--The monitor schedules regular visits (usually at the home) to plan with parents management routines to be used in the home.
- Parent Training Program--Parents learn Developmental Therapy techniques by working as support teachers for time periods determined by parent's time and interest.

All parents are expected to attend a conference at the end of every 10-week session. This conference, conducted by the lead teacher rather than the monitor, is intended for the mutual exchange of information and for planning the next quarter's program.

Planning for parent participation begins with the information gathered at the first intake conference and culminates with the staffing. At staffing, the staff assesses the parents; strengths, resources, problems, limitations, expectations, and readiness to participate. Based on all available information, staff recommend one of three levels of participation: minimal participation, requiring only participation at the quarterly conferences; intermittent participation, requiring occasional contact during the quarter at the Center or home in addition to the quarterly conferences; or extensive participation, requiring weekly contact in addition to quarterly conferences. The amount of parent participation is reviewed at each quarterly conference to suggest increased involvement where appropriate.

#### COMMUNITY

The Rutland Center is closely linked with the local community through an Advisory Council made up of community agency representatives. These representatives serve as advisors and active contact persons for on-going dissemination and communication with both their respective agencies and the community. Other linkages include the use of Junior Assembly volunteers, and through the network projects which are part of a program to create community mental health centers. Work with the Well-Baby Clinic and with several surrounding counties via its field consultants have also strengthened the program at the community level.

In addition, the Center has recently established a program with the Model Cities Day-Care Center. Under this jointly funded effort, a Rutland therapist works full-time at the day-care center where she diagnoses children, administers intake procedures and then develops and implements therapeutic programs with the help of a Model Cities aide. A Model Cities parent program has also been developed as a result of parent interest in learning how to work with their children. The entire program is expected to expand to eight other Model Cities day-care centers.

Other community organizations involved with Rutland Center include:

- The Episcopal Church, which has housed classes and meetings and which owns the Center's rented facilities;
- The University Interfraternity Council, which has donated money for classroom snacks and offered to paint the Center's building; and
- Head Start, which refers children to the Center and reciprocally accepts them for placement.

PART FIVE:  
PROGRAM EVALUATION

Rutland's evaluation system is considered an integral part of the overall project rather than an adjunct to it. The evaluation team (a Coordinator, one full-time and one half-time evaluator) provide evaluative services for each component of the program using a three-part model--planning, monitoring and appraising--illustrated on the following page. The goals of this model, which emphasize the formative rather than the summative functions of evaluation, are to help express questions to be answered and information to be obtained; to collect the necessary information; and to prepare the data in a form useful to decision-makers for assessing alternatives.

Services to Children

The evaluation plan for the direct service component consists of five major phases coinciding with the flow of diagnostic and therapeutic treatment procedures. The phases are intake, staffing, monitoring, termination, and tracking. Each phase is directly supported by data collected and summarized by the evaluation team, which assists in the determination of the child's problems during intake and staffing; provides periodic feedback for maintaining and adjusting the treatment program; assists in specifying graduation criteria; and obtains follow-up information after Center treatment ends.

Two major instruments, in addition to the RFCL described earlier, are used to evaluate children. A Representative Objectives Rating Form (RORF) listing 140 representative objectives is completed by the treatment team every five weeks for each child. The team indicates whether an objective has been mastered, whether it is a major focus of the individual's program or a secondary objective needing some work, or whether the child is not ready for the objective. This form provides a pictorial summary of the child's current developmental stage and rate of progress.

The second instrument is the Systematic Who-to-Whom Analysis Notation (SWAN), an observational instrument based on the representative objectives. The instrument measures a child's interaction in the classroom with other children, with the

## THE EVALUATION PROCESS

<u>Type of Activity</u>	<u>Function or Role</u>	<u>Method</u>
Planning	Identify and assess needs and problems State treatment goals and objectives Identify and assess (alternative) strategies Set up implementation design Determine instrumentation for evaluation	{ Discussion with director, psychologists and evaluation team } { Review of research - discussion involving director, psychology teachers and evaluation team }
Monitoring	Identify individual treatment objectives Collect baseline data } Collect data pertaining to treatment effect (periodic assessment) } Relate data to treatment objectives and process (feedback to staff) } Assess proposal objectives } Implementation evaluation } Devise criteria for concluding that treatment objectives have been attained } Relate outcomes to objectives } Support decisions with regard to outcomes, recycling, reprogramming, termination }	{ Checklist, intake assessment, staff discussion } { Checklist, intake assessments, observation } { Behavioral observation form } { Objectives rating form } { Questionnaire and scales for parents } { Discussion with monitors } { Summary and analysis of collected data } { Inventory (completed by evaluator); questionnaires (completed by staff, parents } { Inspection of collected data and discussion with staff } { Analysis of collected data } { Discussion with director, psychologist, and therapist }
Appraising		

treatment team, and with the materials. Various behaviors measured by this instrument are judged to be positive, negative, or neutral, and increases or decreases in these behaviors are assessed.

### Services to Parents

The initiation of each individual parent program involves promoting parental acceptance of and concern for the child's problems. From the evaluation viewpoint, this is the planning phase. Next comes direct parent involvement and the documentation of this involvement (monitoring). Detailed accounts are kept on ways the parents participate in working with the child. Parent data collected are frequency counts and unobtrusive measures--indicators of information shared, parental acceptance, involvement, and activities outside the Center. The appraising phase includes summarizing all of these indicators and examining change in parents with respect to awareness of child development, work on child problems, and trust in the Center.

### Training

The goal of the training component is to demonstrate Center processes to other professionals and to disseminate professional information to programs serving emotionally disturbed children. The evaluation team helps plan activities and prepares materials such as time charts and feedback forms for workshops, seminars and the like. Data collected during the monitoring phase include frequency counts and qualitative reports. One general concern addressed in the appraising phase is determining what impact the Center has on various social and professional communities.

### Administration

Evaluation of administrative activities includes collection of data on number of children served, amount of improvement shown, type of services rendered, costs, staff training, and community impact. Several measures not specifically related to a particular area of effort have proven particularly useful in administrative decision-making. These include a Staff Feedback Questionnaire, Training Session Evaluation Form, and the Rutland Center Visitor Questionnaire.

PART SIX:  
RECOMMENDATIONS AND FURTHER INFORMATION

RECOMMENDATIONS FOR REPLICATION

The Rutland Center Model is designed to be replicated in a variety of child treatment settings. The approach is applicable to children two to 14 years old with varying ethnic and socio-economic backgrounds, and it can be used by special-education or mental health workers, parents, volunteers and paraprofessionals. Furthermore, it is a substitute for institutionalization of a child and provides early intervention to prevent profoundly debilitating behavior which may develop later.

Rutland's Director has several specific recommendations about start-up for such a program:

- Assess the community's needs, define the problem situation, and then develop a solution. Be prepared to sell a well-conceptualized program.
- Identify the power structure. Approach an influential group that would be greatly concerned about programs for the handicapped and solicit their support.
- Be available for free consultation.
- Make the community aware of the problem and the fact that something can be done.
- Encourage community members to contact their legislators.
- Convince a state agency that this is their problem.
- Propose the program and request reasonable funding.

The Director's more general program suggestions are:

- Administrative personnel should have demonstrated competency in the field, not just seniority.
- Staff must fully understand program objectives and procedures to perform effectively.
- An evaluation model must be an integrated part of the program.
- Keep lives in mind constantly; if the program begins to s refocus the activities or re-evaluate the objectives.

### FOR FURTHER INFORMATION

For further information about the Rutland Center Model, contact:

Mary M. Wood, Ed.D.  
Director, Rutland Center  
698 North Pope Street  
Athens, Georgia 30601  
(404) 549-3030

### MATERIALS AVAILABLE

The following materials are available upon request from the Rutland Center:

#### The Rutland Center Model for Treating Emotionally Disturbed Children - \$5.00

The manual includes the following chapters:

- "Rutland Center: A Community Psychoeducational Center for Emotionally Disturbed Children"
  - "The Rutland Center Evaluation System"
  - "Referral and Intake Procedures"
  - "Developmental Therapy"
  - "Implementing the Treatment Model"
  - "Field Services and Community Liaison"
  - "Services to Parents"
  - "The Georgia Psychoeducational Center Network"
- The appendix includes all copies of instruments used.

Audio-Visual Training Packages - no cost (on loan basis only)

1. Orientation to the Georgia Psychoeducational Center Network
2. Developmental Therapy - Theory and Assumptions
3. Treatment Model Overview - Stages of Therapy
4. Areas of Curriculum
  - a. Behavior
  - b. Communication
  - c. Socialization
  - d. Academics
5. Physical Plant Guidelines for a Psychoeducational Center
6. Orientation to Evaluation System
7. Referral Procedures and Intake Process - An Overview
8. Introduction to the Referral Form Check List
9. School Contacts (for children in intake process)
10. Educational Assessment
11. Intake Interview with Parents
12. Roles of Psychologist and Psychiatrists in Intake Process



13. Referral Form Check List Compilation
14. Staffing Procedures
15. Post-Staffing Procedures
  - a. Educational Planning Conference
  - b. Parent Planning Conference
16. Treatment Model - Implementation
  - a. Utilization of Treatment Personnel
  - b. Utilization of Non-Treatment Personnel
17. School Follow-Through and Tracking
18. Parent Program
19. Representative Objective Rating Form
20. Teacher Techniques in the Classroom
21. Classroom Environment and Experiences
22. Utilization of Evaluation Data in Treatment Program  
(A separate, detailed training program will be available for program evaluators.)

A second manual on curriculum and teaching techniques will be available by September, 1973 - \$5.00

THE UNISTAPS PROJECT  
MINNEAPOLIS, MINNESOTA

*A demonstration project for preschool  
hearing-impaired children from birth to  
six years, a notable feature being its  
family involvement program.*

November 1972

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PART ONE:  
INTRODUCTION

OVERVIEW

UNISTAPS is a demonstration project for preschool hearing-impaired children from birth to six years and their families, operated by the Minnesota State Department of Education. The Project currently offers comprehensive services to 85 hearing-impaired children and their families through the Minneapolis public school system. Program aims include comprehensive evaluation of each child; development of the child's reliance on spoken language as a normal means of communication; strengthened parent-child relationships; community awareness of resources for the hearing-impaired; and incorporation of program principles and practices into university teacher training programs. The UNISTAPS acronym is derived from the project's participating agencies: UNiversity of Minnesota, STAte Department of Education, Minneapolis PUblic Schools.

The Project offers children and their parents a variety of program options including individual tutoring/counseling sessions, small group nurseries and kindergartens in self-contained and integrated settings. An interdisciplinary staff team designs an individually prescriptive oral and aural program for each child and his family. The primary focus is on a home-centered, parent-guided, natural language approach to learning, using a sequenced curriculum developed by UNISTAPS staff. More than half of the children served are profoundly deaf, and 80% are severely or profoundly hearing-impaired.

As the preschool program has become established, the Project Director has launched statewide dissemination efforts through workshops, parent institutes, and professional growth experiences for personnel who serve the hearing-impaired. Staff are also assisting state officials with replication of the UNISTAPS model for application to all Minnesota preschoolers regardless of handicapping condition.

## CONTEXT OF THE PROGRAM

The State of Minnesota's 1967 special-education legislation provided 60% state (40% local) aid for preschool programs for hearing-impaired children and encouraged integration of these children into regular settings. For example, the state aid formula allows for tuition payment for a hearing-impaired child in a regular private nursery school as well as a specialized setting. The State Department of Education in 1968 issued guidelines for preschool programs for the hearing-impaired and their families, and Minneapolis was the first school district in the state to implement such a program at Whittier Public School in Fall, 1968. This program was the foundation for UNISTAPS, initiated in 1969 when a proposal drawn up by the Minnesota Consultant for the Hearing-Impaired resulted in a three-year planning and operational grant from the Bureau of Education for the Handicapped.

Awarded to the Minnesota State Department of Education, the grant called for expansion of Minneapolis' preschool hearing-impaired program and state-wide demonstration of UNISTAPS techniques. In addition to establishing an Infant Program (0 to 3½ years) and a Pre-primary Program (3½ to 6 years), staff have developed a parent-oriented Curriculum Guide: Hearing-Impaired Children From Birth to Three Years and Their Parents which has been published by the Alexander Graham Bell Association for the Deaf.

UNISTAPS is funded by federal, state and local sources for a total of \$267,233 for 1971-72. The federal share (BEH) is approximately 19%; the state provides 39% through the Department of Education and various state aids; and Minneapolis public school funds account for some 42%. UNISTAPS is located in the Special Education section of the Minnesota Department of Education and draws on University of Minnesota personnel for consulting (program, curriculum, evaluation) and training assistance. The Minneapolis Regional Program for the Hearing-Impaired in the Minneapolis school system serves as the laboratory for the UNISTAPS Project, but is administratively independent. The cooperative-consultative-coordinating nature of this relationship has been carefully built into the system. The Project supplies teachers and special personnel who work in specialized and integrated classrooms in the city's public schools.

PART TWO:  
PROGRAM OPERATIONS

UNISTAPS operated on two levels: (1) locally, the Project works with the Minneapolis Regional Program for Hearing-Impaired Children to offer Infant and Pre-primary Programs in public schools; (2) on a state-wide level, the Project trains preschool personnel interested in replicating the Minneapolis program and the UNISTAPS concept.

MINNEAPOLIS REGIONAL PROGRAM FOR HEARING-IMPAIRED CHILDREN

The Infant Program (0 to 3½ Years)

Upon acceptance into the Program, all children from birth to three-and-a-half years are placed in the Infant Program, designed individually to help children develop cognitive, aural/oral communication and social skills, and the dynamic use of residual hearing. Goals for parents include acceptance of their feelings and attitudes towards the handicapped child as well as realistic acceptance and understanding of the nature of the child's hearing loss and developmental characteristics. The majority of children in this program enter between the ages of 1½ and 2½, along with children whose identification and hearing loss diagnosis occurred at a later age.

Each child, along with his parents, has a weekly one-hour session with one of the program's three tutor/counselors. The sessions take place in one of the two demonstration home "classrooms" (of Whittier Public School) arranged in an efficiency livingroom-kitchen combination so parents can learn to use their own home settings as natural environments for auditory and linguistic stimulation. Initially, the parent observes as the counselor demonstrates a specific activity with the child, accompanying the activity with well-inflected language and use of environmental sounds. Gradually, the parent assumes the lead role with help from the tutor/counselor and becomes an informal teacher who can make use of daily living situations to stimulate comprehension of language and attempts at verbal self-expression. When parent and child are judged ready, they move on to one (or a combination) of the program's service options described below. Major factors influencing placement include an assessment of the child's functional use of residual hearing, language level, social maturity and age, and parental attitudes.

### Parent-Child Nurseries

One option for three and four-year-olds is the parent-child nursery for children who have been identified late and have profound hearing losses; who have been in hearing nurseries and have not made adequate progress; and for those who have only had individual sessions, as above, and whose evaluators feel this is the best placement. Parents are taught ways to help their children integrate oral communication as a natural part of their lives. They participate fully in nursery classes three mornings a week and spend an hour weekly when needed on individual auditory and language stimulation. The parent-child nursery is essentially a transitional phase between the Infant Program and the higher-level, school-based daily Pre-Primary Program.

### Pre-Primary Program (3½ to 6 Years)

The Pre-Primary Program aims to develop children's ability to express functional concepts through language; readiness to begin written, read and spoken language training; improved voice quality, pitch and inflection of speech; discrimination of language patterns through use of residual hearing; an inductive approach to learning, retention, classification of information; and improved self-image and self-confidence. Six kinds of programs are available\*:

- Half-Day Nursery

This is the first "formal" education program for deaf children aged four to five. It's formal in its prescribed emphasis on oral/aural skills, vocabulary and language development, but learning continues to be through experimental activities and play. Intensive auditory training, individual speech and language periods, and emphasis on written language as part of follow-up activities are the major differences between this nursery and a good regular nursery. For some children, enrollment in a regular nursery is also recommended.

- Regular Nursery School

When students have advanced in their speech, vocabulary and language development with the full-time use of hearing aids, they are often placed part- or full-time in nursery schools for children with normal hearing. Parent counselors/tutors and the program's social worker help the family find a suitable program, and, if necessary, parent and child continue to receive UNISTAPS tutoring.

\*Descriptions of these service options are abstracted from the UNISTAP's  
1971-1972 Evaluation Report.

UNISTAPS has its own requirements for nursery schools regarding licensing, curriculum, staff/child ratios, and so on, and has located 18 nursery schools which fit its requirements. Once a child is admitted to a regular nursery school, UNISTAPS conducts a semi-annual review to measure progress. If results are unsatisfactory, they may recommend another setting for the child.

- Full-Day Kindergarten

To provide all the language reinforcement, speech activities, auditory training, reading readiness, and number concept learning as well as the activities found in a regular kindergarten, a full-day program for five-year-old deaf children was initiated in Fall, 1971 using a self-contained setting. These children are generally less able linguistically, have poorer auditory listening skills, and need more practice and formal language structure than children who are placed in the half-day regular kindergarten/half-day hearing-impaired kindergarten.

- Half-Day Regular Kindergarten/Half-Day Hearing-Impaired Kindergarten

This option was begun in 1968 to integrate hearing-impaired and normally hearing children into one setting for a half-day. Hearing-impaired children benefit from this arrangement through interaction with children who have normal speech and through participation in a regular kindergarten program. The second half day provides speech, language and auditory training in a self-contained classroom with a trained teacher of the deaf reinforcing the language needed for participation in the regular kindergarten.

- Readiness Program

Before the hearing-impaired child is placed in a regular first-grade class, a year of intensive readiness is provided. Children are moved through the reading readiness and basic pre-primer series. The children's reading and written language level is initially better than normally hearing first-grade children, but their language deficiency soon narrows the gap, so by the end of first grade, most hearing-impaired children function in the middle academic group.



### ● Integrated Program

A major objective of the Minneapolis Program for Hearing-Impaired Children is the integration of appropriate children into their home schools. A trial period of part-time integration is generally provided in the two elementary facilities housing the Pre-Primary classes before placement in the local district. This trial period allows very close supervision of each child's social, emotional and academic progress by a special teacher. When a full-time integration is recommended, a team of UNISTAPS personnel meet with the local school principal, classroom teacher, speech clinician and tutor to discuss the child's special needs. The "receiving" teachers are invited to observe UNISTAPS students and may be shown video-tapes of the child to illustrate developmental level and needs. UNISTAPS staff visit the teacher and child in the new setting each month to help with adjustment problems.

### UNISTAPS STATE-WIDE TRAINING PROGRAM

To disseminate information about this model so other Minnesota school districts can replicate it, the UNISTAPS Project has launched a state-wide training program which provides continuing professional growth experiences for personnel who serve hearing-impaired children and their families--professionals and para-professionals, parents, and allied resource specialists in health, education and welfare. The Project uses lectures, conferences, workshops, university seminars and practica, and site visits planned and coordinated by the Project Director.

### Training Design

UNISTAPS' Director is also a member of the Special Education section of the State Department of Education. She plans the format and content of each conference and workshop in conjunction with ad hoc committees representing the various kinds of participants who will comprise the audience. The committee members help develop the agenda and indicate the training needs and interests of the groups involved. In addition to these committees, the Director meets regularly with the Special Education Regional Consultants responsible for monitoring and developing regional programs for young handicapped children throughout Minnesota. The consultants indicate their specific training needs and programs are designed accordingly.

Immediately following each training session, participants evaluate the usefulness of the workshop as a whole as well as individual presentations. Their suggestions for future workshop activities have been most helpful to UNISTAPS staff.

### Content of the Training

What follows are descriptions of the kinds of training which have been offered to the various audiences.

- State Workshops for Parents

Three state-wide workshops have been offered by UNISTAPS to parents of pre-primary hearing-impaired children from birth to six years. One of these workshops, dealing specifically with the needs of the deaf-blind child at home and in the community, covered the following topics: community service agencies--how and when to use them; impact on the family--a dialogue; daily living skills; normal language development; language development through sight, touch, hearing. Arrangements were made for parents to visit a class of deaf-blind children in the Minneapolis Regional Program and the multi-handicapped unit at the Braille and Sight Saving School.

The other parent workshops included panel discussions of deaf and hard-of-hearing teenagers enrolled in a variety of educational settings and of parents of hearing-impaired children. Sessions were also held on: options and ideas about parent groups; educational services without cost--how, when, and where; how we hear--with and without a hearing aid; research in hearing disorders--fact and fancy.

- Workshops for Professionals, Paraprofessionals, and Allied Resource Specialists

Six state workshops have been offered during a three-year period to a diverse group of workers who are now or might become involved in serving hearing-impaired children. One conference, entitled "Have You a Hearing-Impaired Child in Your Class?" oriented teachers (nursery, kindergarten, first and second grades) to the needs such children have in regular classrooms. Role playing techniques were used with small groups of participants to dramatize some of the feelings and fears of regular teachers serving hearing-impaired children. (This session was entitled, "I Don't Mind Having Him in My Room, But...").

other conferences discussed the role of paraprofessionals and professionals serving pre-primary hearing-impaired children and their families, the role of professional resource personnel in serving deaf-blind children, and the dynamic use of residual hearing.

- University Seminars and Practica

During the summers of 1969 and 1971, a one-week seminar and a six-week practicum on "The Preschool Hearing-Impaired Child and His Family" were offered at the University of Minnesota's Department of Communication Disorders for graduate credit, sponsored by UNISTAPS. The courses were opened to persons involved in the rehabilitation or education of hearing-impaired children and concerned the communication problems of these children. Taught by University of Minnesota faculty, UNISTAPS staff, and guest speakers, the course dealt with: a review of normal preschool development; effects of hearing handicap on normal development; language development in the preschool child; identification, description, and measurement of residual hearing in infants; use of hearing aids by young children; a sequential program in auditory training; and many more. The practicum involved observation and supervised practice with hearing-impaired children and their parents on an individual and group basis.

- Video-Tape Bank

UNISTAPS offers a bank of 30 video-tapes of lectures and demonstrations used in their state-wide training effort. These are available on a lending basis to programs within the state interested in developing and/or improving services for the hearing-impaired and cover such areas as: "Understanding Those Feelings"; "Auditory Training Procedures"; "Integration"; and "Child Development."

- Shared Materials

For programs interested in replication, UNISTAPS publishes a list of "Shared Materials Available Through the UNISTAPS Project". This list describes the publications, brochures, curriculum guides and forms used in the program's day-to-day operations (see Part Six).

PART THREE:  
NOTABLE FEATURES

FAMILY EDUCATION AND INVOLVEMENT

UNISTAPS attempts to involve the whole family in the education of the hearing-impaired child and is committed to the principles that "parents are the child's first and best teachers; the home is the most appropriate learning environment; and daily activities are the most vital sources of language input for young children."

Parents are the program's first pupils--with children in tow. During the child's first three years, the primary focus of the program is on parent counseling, guidance and education. The vast majority of UNISTAPS' parents have no previous experience with deafness and therefore no skills to draw upon. The program's multidisciplinary staff and resource specialists work initially with the parents' attitudes and feelings about their handicapped child. Once these feelings are understood and accepted, the emphasis shifts to parent involvement in language and auditory stimulation for the child. Ultimately, the program hopes to develop emotionally stable, confident, and competent families who can provide a stimulating learning environment for the infant in his home.

Because parent involvement is essential to all of the program's phases, the entire family must make a commitment in order for the child to be admitted to the program. This commitment is made readily by most parents, who are relieved to find services and moral support available to them. There are several ways the program actively involves parents and other family members:

- Individual Parent Teaching Sessions

As discussed briefly in Part Two, all children are initially placed with their parents in individual teaching sessions once weekly. Led by a parent tutor/counselor, these sessions take place in two former classrooms which have been remodelled into efficiency "apartments" with kitchenette, hide-a-bed, comfortable furniture, pictures, mirrors, and a bubbling coffeepot. The homelike rooms are designed to help parent and child feel at ease and to offer experimental activities which can be carried out in the family's own home.

The tutor welcomes parent and child and checks to make sure the child's hearing aid is working properly. Initially, the tutor demonstrates a specific activity while the parent observes. Gradually, the parent is drawn into the lead role while the tutor offers suggestions about using environmental sounds, properly inflected speech and natural language. Each session is evaluated and new ones are planned in advance by the parent and tutor. The Weekly Progress Report (See Figure 1 included at the end of this section) which summarizes the general goals and objectives of each activity for parent, child and teacher, is filled in at the end of each session. Staff use these progress records to adjust objectives and programs. The specific experiential activities offered are based on a family-oriented, home-centered curriculum designed by the UNISTAPS program (Curriculum Guide: Hearing-Impaired Children from Birth to Three Years and Their Parents) which contains concrete activity suggestions for parents to use in their homes.

Parents are encouraged to keep a looseleaf notebook of their own observations regarding their child's growth and development and to use these during teaching sessions. Each week they jot down specific activities suggested by the tutor for the next session. These notebooks are often a source of comfort as parents review their own child's progress and encourage other parents who are just beginning with the program.

- Mothers' Groups and Other Family Meetings

All mothers with children in the Infant and/or Pre-Primary programs are requested to attend a two-hour meeting each week. This meeting gives mothers a chance to meet informally with other mothers and to participate in lecture-discussion sessions with staff and outside consultants. Many facets of child growth and development are touched upon in these sessions, as parent questions and child behavior dictate. Preschool hearing-impaired children and hearing siblings are cared for by teacher aides during these meetings.

Similar meetings for fathers are held once a month, in the evening or on Saturday. Led by the male Director of Social Work Services for Special Education Programs in the Minneapolis public schools, these meetings address the specific concerns and needs of fathers of hearing-impaired children. Fathers have found the meetings extremely supportive: close ties are formed between group members, who often end their sessions with informal social activities.

In an attempt to reach all family members who come in contact with the hearing-impaired child and may potentially help him, the program has arranged special meetings for grandparents and for siblings as well.

- Child Management Course

A 10 week course in family dynamics and child management is offered to program parents and has been so well received that three different sessions will run in 1973. The course meets weekly in the evening and is a donated service of the Adlerian Institute of Minneapolis.

- Pop-in-Parents Program

Modeled after an English set-up the UNISTAPS Director observed, Pop-in-Parents is a group of graduate mothers of the program who visit new parents in their homes. The visits provide emotional support and encouragement to new families and help them understand the program's benefits for the child as well as for themselves. The Pop-in-Parents are trained by the parent counselor/tutors and the social worker in the supportive roles they can fulfill and are advised about roles which are not appropriate for them to assume (therapist, doctor, etc.). These graduate parents work closely with staff, informing them of family needs, problems, and progress.

## FIGURE 1. WEEKLY PROGRESS REPORT

## SAMPLE

DATE April 1, 1971 (SECOND VISIT) WEEKLY REPORT FOR Pam S. (2 years, 4 months) BY Parent Counselor/Teacher  
 (USE OF WEEKLY FORM: PARENT AND CHILD)

ACTIVITY	CHILD'S BEHAVIOR	BEHAVIOR OF ADULT ACCOMPANYING CHILD
<p>Pulling a stuffed animal out of a bag.</p> <p>Playing with gaily colored rings and putting them on a peg stand.</p> <p>Putting animals in wagon, giving them a ride. Taking a kleenex out of box, giving them to mother.</p>	<p>Pam glanced up fleetingly but at times her attention span lasted for as much as 4 words of input.</p> <p>Good attention initially, then engrossed in toy. No interaction in play.</p> <p>Pam followed eye clues for 3 different suggestions re wagon and toys to put in it. Followed my eye clue and gave kleenex to mother when I said, "Give one to mother," handing her the tissue.</p> <p>Came wearing hearing aid ... Yes</p> <p>Used aid during session ... Yes (wears it all day now)</p>	<p><u>Quality of interaction</u>        Mother more relaxed, sat back in chair, smiled a lot, Homest about how hard it is NOT to ask questions instead of making statement when talking to Pam (no whining - a reasonable child).</p> <p><u>Response to child's gestures, expressive language</u>        Mother using rather stilted expressions, and unnatural voice patterns, at times.</p> <p><u>Inflectional patterns</u>        Two and three-tone variation in pitch; spontaneity is missing, it's as though she is trying to apply principles so new to her at the same time she is speaking.</p> <p><u>Behavior management of child</u>        Good little girl, comfortable and content with mother, affectionate and receives affection. Mother talking about older son in a different way than last time, telling the cute things he says and enjoying the boyishness of him.</p>



## CHILD'S LANGUAGE

<u>RECEPTIVE</u>	<u>EXPRESSIVE</u>
<u>Auditory Attention and Discrimination</u>  Pam turned around when I called her name.  1. <u>Hears It</u> : Mother reports no response to any additional sounds other than vacuum cleaner, door slam, keys shaking, rattling full paper bag of toys. 2. <u>Localizes</u> : Does not generally localize presently. 3. <u>Response</u> : Pam stopped and looked around when I dropped box of blocks.	<u>Examples</u>  Vocalizing:  Babbling: <u>Freely</u>  Voiceless speech:  Holophrastic:  Echolalic:  Telegraphic:  Free expression:
<u>Speechreading (Multisensory)</u>  1. <u>Specific</u> "Daddy's coming." "Let's go outside." 2. <u>General</u> Glancing up for an average of 3-4 words, sometimes only for one!	<u>Gesture language</u>  None Mother reports difference in volume when aid is on, Pam babbles with more inflection. Used a shrill voice when seeking mother's help to lift heavy stuffed animal.



"HOMEWORK FOR PARENTS"

1. Mother's activities of past week: Mother reading materials provided in packet by Alexander Graham Bell Association for the Deaf, for parents. Paul (4) had a birthday. "I listened and a lot of those kids aren't talking very well either!" "I listened to 2-year-olds talk, they don't talk much, do they?" Telephoned Mrs. G. (suggested last week) who has 3-year-old hearing-impaired child. M. comment: "I've been helping my neighbors; they were all gesturing and pointing, so now they are getting the message. TALK and use your eyes as clues to what you want Pam to do."
2. Father's activities of past week: Daddy is beginning to do special things (going to get gas for the car) with Paul, letting him stay up a little later and reading to him after Pam is in bed. Paul seems a bit more relaxed. Dad enjoys fact Pam hears his voice when he calls. Gives Pam her bath nightly and talks to her.
3. Parents' questions: 1) Reason why statements are used and not questions... 2) "She can hear normal conversation with her aid on." Response: explanation of "listening age" (now 6 weeks) and expectations for child with 6 weeks of language input... 3) Asked if parents could join group meetings, observed another mother and 3-year-old. Was impressed with that mother's conversation. "She knows what to say when J. looks at her."
4. Suggestions to Parent: Select two household sounds (water running in toilet, sink; electric mixer) for emphasis. Start your own notebook - not elaborate or frequent notations. Notice whether Paul gestures to Pam - are they natural 4-year-old gestures or his only pattern of communication with Pam? Discourage latter. Try to use a strong voice, vary volume for occasion.  
  
Next Scheduled Visit: Next week, same time. Told mother (honestly) she has a lovely, expressive face.

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Modified By: Staff, Whittier School (0-3 year olds) Minneapolis Public Schools (Laboratory Facility for Exemplary Preschool Program for the Hearing-Impaired).

Original form was designed by staff at Central Institute for the Deaf for use in their Demonstration Home Program for Infants.

PART FOUR:  
PEOPLE IN THE PROGRAM

STUDENTS

Student Demographics

The 85 students currently enrolled in UNISTAPS range in age from birth to six years. The mean age of enrollment in the program has declined over the past three years (from approximately 38 months to 21 months for children with profound loss and from 39 months to 26 months for those severe loss) as children's hearing losses are diagnosed earlier.

All of the students in the program are hearing-impaired (have hearing losses which are handicapping educationally and/or developmentally). More than half of these children are profoundly deaf (more than 90 decibel loss) and 80% are severely or profoundly impaired. Some students have secondary handicaps such as learning disabilities, crippling conditions, visual impairments, and emotional problems.

According to a 1971 evaluation report, the most frequent known causes of hearing impairment are maternal rubella and familial hearing impairments. Birth complications and adventitious diseases (meningitis, middle-ear infections, etc.) represent only a small percentage of cases.

In the Fall of 1970, every child in the Minneapolis program was tested to determine whether he/she was a suitable candidate for binaural amplification, or a second hearing aid. Some 87 of the 120 children evaluated were recommended for change to binaural amplification. UNISTAPS and public school funds purchased the necessary aids.

Student Recruitment and Selection

Students are drawn from Minneapolis-St. Paul and surrounding communities, with a few traveling up to 50 miles to participate in the program. First priority is extended to children in the Minneapolis school district. There has never been a waiting list for UNISTAPS--all children who qualify have been accepted.

The student's family is generally referred to the program by a physician or an audiology clinic after the child has been diagnosed as hearing-impaired. The program's social worker follows-up the contact, usually within three weeks of notification of the referral. Follow-up is done by a home visit to explain the various kinds of program options. Because many of the parents are strained and confused by the recent diagnosis of their child, the social worker assumes a supportive role. A supplement to the social worker's visit is the visit from a parent who has been in the program and is matched to the general lifestyle of the entering family (working mother, parent-without-partner, etc.).

The program attempts to reach families as soon as the diagnosis of hearing loss has been established. Prior to enrollment and individual programming for children, a medical examination, otological examination, audiological evaluation, social history and an individual hearing aid (when prescribed) are required. The program also requires that a family member, preferably the parent or guardian, attend weekly individual-parent tutoring/counseling sessions with the child as needed and, in some cases, participate three times weekly in a mother-child nursery program. In addition, mothers are requested to attend weekly mothers' group meetings. Accommodations are made in meeting times to include working mothers. Where such total parent involvement has not been possible, the assistance of a close family friend or babysitter has been obtained.

## STAFF

### Staff Positions

As mentioned in Part Two, Program Operations, the UNISTAPS Project Director, in her capacity as a member of the Special Education section of the State Department of Education, is responsible for the project's state-wide training program. For the UNISTAPS service component, there are essentially two sets of program staff: the interdisciplinary team (handling the Infant Program, birth to three-and-a-half years), and the teachers of the Pre-Primary Program (three-and-a-half to six years). A Coordinator supervises, recruits and trains (in-service) both sets of staff.

### Interdisciplinary Team\*

A communicologist spends half-time on audiological evaluations and half-time on speech and language therapy for the program's children. The social worker makes initial contact with prospective program families and assists them throughout their stay with the program, particularly with referrals. She is also responsible for follow-up when a child leaves the program. A school health representative, funded half-time by the local education agency, works closely with the social worker on medical and social referrals.

Three full-time parent tutor/counselors are primarily responsible for parent and child education in the Infant and parent-child nursery programs. These people also coordinate the weekly mothers' group meetings, collect data about the children, their progress and their families, and provide manual communication to non-oral deaf parents to help them feel comfortable while participating in the program.

### Pre-Primary Teaching Staff

The interdisciplinary staff provides supervision and assistance to the 13 teachers and nine teacher aides in the Pre-Primary Program. Information on child progress, evaluation, and home situation is shared between the two sets of staff. The teaching staff serve in the program's nurseries, kindergartens, and readiness classes located in two Minneapolis public schools. Part Two describes these classes.

There are no volunteers in program classrooms. The Coordinator feels that, for hearing-impaired children, consistency of staff is highly important: the time allotment most volunteers can assume is not adequate for UNISTAPS' needs.

### Staff Recruitment and Selection

Staff are recruited throughout the Minneapolis public schools. The Coordinator sends notification of job openings to schools and colleges which she considers to have strong programs in deaf education and to various professionals in the field. The Coordinator interviews applicants: hiring is done by the local

\*Several interdisciplinary team positions were not maintained in the 1972-73 year because of a cut-back in educational funds. These included an assistant coordinator, a helping teacher, and an occupational therapist.

education agency. Generally, new teaching staff must meet the following criteria: certification by the Minnesota State Department of Education in their field of specialization; B.A. degree; experience in working with hearing-impaired children and children with normal hearing.

#### Staff Training

In-service training sessions are held weekly for program staff and monthly for public school special education personnel not directly involved with the program. Sample session topics include: The Nature of Parent Counseling--Objectives and Action; Attitude and Feeling of Parents--Living Together as a Family; The Training of Residual Hearing--Translation of Audiometric Findings into Educational Prescription; Components of a Comprehensive Evaluation Program. Staff are also encouraged to take advantage of the workshops and conferences provided by UNISTAPS as part of its replication and dissemination effort.

#### PARENTS

The UNISTAPS Parent Program is described in Part Three, Notable Features.

#### COMMUNITY

Through its dissemination and state-wide training efforts, UNISTAPS is reaching out to all regions of Minnesota. The Project's 18-member Advisory Committee, appointed by the Commissioner of Education, includes representatives of five departments of the University of Minnesota, the State Department of Education, and the Minneapolis Public Schools. Two program parents also serve on the board.

PART FIVE:  
PROGRAM EVALUATION

During the first two years of UNISTAPS' operations, program evaluation was highly process-oriented, consisting of developmental logs and video-tapes of the children and analysis of admission and discharge criteria. The staff, however, felt a need for more formal evaluation which would systematically measure both objectives and achievements for the children. A member of the University of Minnesota's Special Education Department was hired to help staff address the program's evaluation problems, which included:

Non existent instrumentation -- No standardized tests existed to measure adequately the achievement of preschool hearing-impaired children.

Inappropriateness of traditional evaluation designs -- The traditional control and contrast groups in experimental designs were not appropriate for this kind of program. The incidence of children with severe hearing impairments in the school population was too low to permit the identification of contrast groups.

Diffuse objectives -- Many of the project's objectives were not sufficiently behavioral and/or quantifiable for evaluation purposes.

Evaluation Design

A "modified discrepancy evaluation model" was used to assess the attainment of project objectives for the 1971-72 school year. Staff and the consultant formulated objectives for various categories of program operations--Clinical Assessment and Program Management Objectives; Pupil Development Objectives; and Parent Involvement Objectives. Instruments were either adapted or created to measure achievement of parents, children, and the program itself as specified in the objectives. A Summary of Pupil Development Objectives (Figure 2) is included at the end of this section.

### Evaluation Results

Here is a capsule summary of the 1971-72 evaluation findings:

"Although few results are reported on clinical assessment and program management objectives, it appears that attempts made to enroll children in the program promptly after diagnosis of hearing loss have had some effects on decreasing the age at which children are enrolled and this interval between diagnosis and enrollment. All social development measures appeared to indicate that these children are making fairly normal social growth and development. Speech and language measures showed more variable results: although a majority of children met many of the success criteria on the staff developed rating scales, kindergarten and readiness children scored less well on the standardized Peabody Picture Vocabulary Test, underscoring the need for developing more reliable test instruments for a hearing impaired population. . . Nursery children appear to have learned good hearing aid usage skills. In addition, parents of children in the Infant Program appear to have met the program's objectives for learning factual information pertaining to their children's hearing loss and educational program, and to have made progress toward more appropriate parent-child interactions."

### Sociometric Study of Hearing-Impaired Children

During the past four years, approximately 46% of the children originally enrolled in the preschool program (not including 12 deaf-blind or deaf-retarded youngsters served in 1968-69) have been placed in regular classrooms in their neighborhood schools for most of their instruction. In 1971-72, a UNISTAPS staff member conducted a preliminary sociometric study of 15 of these children (11 deaf, 4 hard-of-hearing) who were enrolled in first and second grades in Minneapolis and suburban schools to examine how these children were accepted by their normal hearing peers as well as how both groups perceived their own sociometric status (socioempathy).

Three test instruments were used: the Moreno Sociometric Scale which assesses the group status of children who are nominated by their peers, an experimental forced-choice Peer Acceptance Scale, and a social choice socioempathy scale. All three instruments indicated that the hearing-impaired children who were integrated into regular classrooms gained a degree of social acceptance which was contrary to expectations based on earlier reported findings. According to the 1971-72 evaluation report,

"There were no significant differences found between hearing-impaired and hearing children except for the Moreno Test, due to the extremely low scores on that test of the children with mild to moderate losses. The children with more severe hearing losses were better accepted than those with less severe losses, contrary to the expected findings. These data do appear to support the hypothesis that hearing-impaired children are perceptive of their own status, as can be seen by comparing the forced choice sociometric and socio-empathy tables."

UNISTAPS hopes to further explore the social adjustment of hearing-impaired children in regular classrooms. Staff are particularly interested in following up the adjustment of these children over time, measuring the effects of integration and analyzing the factors which contribute to successful and non-successful integration. Staff feel it is crucial to assess the effectiveness of integration and to examine the assumptions underlying this strategy, particularly since this trend is beginning to emerge in special education.



FIGURE 2. SUMMARY OF PUPIL DEVELOPMENT OBJECTIVES

OBJECTIVE	AGE GROUP	INSTRUMENT	SCHEDULE OF TESTING
<u>Social Development</u>			
*1. Each Nursery level child will: a. Share materials b. Take turns c. Differentiate between his own and group materials 80-100% of the time	4 years	UNISTAPS Progress Summary Report (Social Development)	Spring
*2. Each child in the Kindergarten program will: a. Wait his turn b. Play cooperatively c. Dress independently more than 80% of the time	5 years	UNISTAPS Progress Summary Report (Social Development)	Spring
*3. Each child in the Readiness class will: a. Take responsibility for own possessions b. Interact appropriately with normal hearing peers c. Relate comfortably to resource personnel more than 50% of the time	6 years	UNISTAPS Progress Summary Report (Social Development)	Spring
*4. Each child in the Infant and Preprimary Program will reflect normal social development	0 - 6	Vineland Social Maturity Scale and Preschool Attainment Scale	One month after entrance and April/May '72
<u>Communications Skills</u>			
*1. Each nursery child will acquire 75% of noun vocabulary	4 years	Curriculum Vocabulary Evaluation	Spring
*2. Each nursery child will generate 2-3 word sentences orally	3 - 4	UNISTAPS Progress Summary Report (Language)	Spring
* Data collected and analyzed for this objective in 1971-72.			

# SUMMARY OF PUPIL DEVELOPMENT OBJECTIVES

OBJECTIVES	AGE GROUP	INSTRUMENT	SCHEDULE OF TESTING
<u>Communication Skills (Cont)</u>			
* Each nursery child will be able to approximate with 75% accuracy pitch and stress patterns in one to three word familiar phrases	3 1/2	UNISTAPS Progress Summary Report (Speech)	Spring
* 4. Each nursery child will be able to imitate or produce spontaneously initial consonant and vowel sounds with 75% accuracy	4 years	UNISTAPS Progress Summary Report (Speech)	Spring
* 5. Each Nursery level child will:	4 years	UNISTAPS Progress Summary Report (Speech)	Spring
a. Be able to discriminate differences between speech stimulus and ongoing environmental "noise" 75% of the time	4 years	UNISTAPS Progress Summary Report (Speech)	Spring
b. Be able to discriminate one vs. two syllable words 75% of the time	4 years	UNISTAPS Progress Summary Report (Speech)	Spring
c. Be able to discriminate two one-syllable words on basis of vowel difference 75% of the time	4 years	UNISTAPS Progress Summary Report (Speech)	Spring
6. Each kindergarten child will acquire 65% of noun vocabulary	5 years	Curriculum Vocabulary Evaluation	Spring
* Each kindergarten child will generate 3-4 word sentences orally	4 - 5	UNISTAPS Progress Summary Report (Language)	Spring
* 8. Each kindergarten child will use <u>I</u> , <u>me</u> , <u>my</u> with 75% accuracy	4 - 5	UNISTAPS Progress Summary Report (Language)	Spring
* 9. Each kindergarten child will answer orally Who? What? What color? How many? question forms	4 - 5	UNISTAPS Progress Summary Report (Language)	Spring
* Data collected and analyzed for this objective in 1971-72.			

# SUMMARY OF PUPIL DEVELOPMENT OBJECTIVES

OBJECTIVE	AGE GROUP	INSTRUMENT	SCHEDULE OF TESTING
*10. Each kindergarten child will be able to approximate pitch and stress patterns in 4-5 word phrases 75% of the time	5 years	UNISTAPS Progress Summary Report (Speech)	Spring
*11. Each kindergarten child will produce 80% of assigned speech sounds through imitation	5 years	UNISTAPS Progress Summary Report (Speech)	Spring
*12. Each kindergarten child will be able to: a. Discriminate between a cheerful and an angry voice 75 % of the time b. Discriminate his own name	5 years	UNISTAPS Progress Summary Report (Speech)	Spring
*13. Each Readiness child will acquire 60% of noun vocabulary	6 years	Curriculum Vocabulary Evaluation	Spring
*14. Each Readiness child will write the following: Who = Who = What Who =	6 years	Samples of Children's written language	Spring
*15. Each Readiness child will answer orally, When? Where? What did ____ do? question forms	6 years	UNISTAPS Progress Summary Report (language)	Spring
*16. Each Readiness child will be able to approximate pitch and stress 75% of the time.	6 years	UNISTAPS Progress Summary Report (speech)	Spring
*17. Each Readiness child will produce 80% of sounds using only printed symbol stimuli	6 years	UNISTAPS Progress Summary Report (Speech)	Spring
*18. Each Readiness child will discriminate familiar phrases, imitate basic inflectional and other prosodic patterns 75% of the time	6 years	UNISTAPS Progress Summary Report (Speech)	Spring

# SUMMARY OF PUPIL DEVELOPMENT OBJECTIVES

OBJECTIVE	AGE GROUP	INSTRUMENT	SCHEDULE OF TESTING
19. Each child in the Pre-primary Program will show 6 months gain in receptive vocabulary in a year's time	3 1/2 - 6	Peabody Picture Vocabulary Test	February '71 February '72 February '73
<u>Hearing Aid Usage</u>			
1. Each nursery child will be: <ul style="list-style-type: none"> <li>a. Full time hearing-aid wearer</li> <li>b. Able to indicate whether the aid is on or off</li> <li>c. Able to put in his ear mold 80% of the time</li> </ul>	4 years	Demonstration to teacher	Spring
2. Child will show improvement in aided discrimination scores	0-6	UNISTAPS - Gladwin Test Battery	May - June '71 May - June '72

PART SIX:  
RECOMMENDATIONS AND FURTHER INFORMATION

RECOMMENDATIONS FOR REPLICATION

For those interested in replicating UNISTAPS' Family Involvement feature, the program's staff suggest several factors they feel others should consider before embarking on such an effort. For example, administratively, programs should be aware that UNISTAPS benefits from Minnesota's State Plan for Hearing-Impaired Preschool Children which developed guidelines for and encourages family involvement in this kind of program. Staff also cited their commitment to the following interrelated concepts:

- Parents as the child's first and best teachers

In this program parents are treated not only as learners, but as expert resources who should be tapped in the education of their children. Staff try to dispel the notion that they possess a certain magic which can't be used or obtained by parents themselves. In a sense, parents are the professionals in this program: staff exist to provide a model which parents can follow and build on in their own homes.

- Early educational intervention

Because the program reaches the families so soon after the diagnosis of hearing loss is made (families may be enrolled within three weeks of learning the diagnosis), staff are able to help parents deal with and develop healthy attitudes before they are hardened or embittered. Support, guidance, and education are offered to the parents only when they feel ready for these services. The program develops as the parents develop in their abilities to deal with their hearing-impaired children.

- Normal expectations

Supporting staff must give parents the chance to assess and appreciate realistically the abilities as well as limitations of their children. Parents are trained to view their child in terms of normal expectations--in fact, the UNISTAPS curriculum is based on normal child development milestones (with accompanying reinforcing activity suggestions for parents of hearing-impaired children). The program attempts to help parents build upon the normality of their children, a concept often difficult for parents to accept. As one parent tutor/counselor says, "I try to help parents see which behaviors of their child are normal for any two-year-old and which are specifically related to the child's hearing loss. Often parents

tend to look at all of the child's very normal needs and problems as due to the hearing loss. This is unfair to the child." Staff feel that normal expectations by teachers and families offer the key to successful integration of these children into the mainstream of education.

#### FOR FURTHER INFORMATION

For further information about UNISTAPS, contact:

Winifred H. Northcott, Ph.D.  
Director, UNISTAPS Project  
Minnesota Department of Education  
Special Education Section  
550 Cedar Street  
St. Paul, Minnesota 55101

#### MATERIALS AVAILABLE

Materials available for distribution and their source are listed below:

1. Northcott, W.H. CURRICULUM GUIDE: HEARING-IMPAIRED CHILDREN-BIRTH TO THREE YEARS-AND THEIR PARENTS. Cost: \$6.00.  
Order from: Alexander Graham Bell Assn. for the Deaf;  
1537 35 St. N.W. Washington, D.C. 20007.
2. Brochures describing goals and objectives:  
  
A Family-Oriented Infant-Preschool Program for  
Hearing-Impaired children, 0-3 1/2 years.  
  
A School-Oriented Preprimary Program for Hearing-  
Impaired Children, 3 1/2 - 6 years.  
  
Free upon request: Special Education Section, State Dept.  
of Ed.; 550 Cedar Street, St. Paul, Minnesota 55101
3. Articles relating to early education of the hearing-impaired:  
  
Northcott, W.H., Infant education and home training  
in L.E. Connor, (Ed.) Speech for the deaf child: knowledge  
and use. A.G. Bell Assn.; 1537 35 St. N.W., Washington, D.C.  
Cost: \$8.50.  
  
\_\_\_\_\_. Developing parent participation. In D. Lillie,  
(Ed.) Parent programs in child development centers.  
Order from TADS, University of North Carolina, Chapel Hill.

\_\_\_\_\_. Candidate for integration: a hearing-impaired child in a regular nursery school. Young Children, 1970, 25, 367-380.

\_\_\_\_\_. Integration of young deaf children into ordinary educational programs. Exceptional Children. 1971, 38, 29-32.

\_\_\_\_\_. Implementing programs for young hearing-impaired children. Exceptional Children, 1973, 39, 6, 455-463.

\_\_\_\_\_. The hearing-impaired child. The speech clinician as interdisciplinary team member. Journal of Language, Speech and Hearing Services in Schools. (ASHA), 3, 7-19.

\_\_\_\_\_. Competencies needed by teachers of hearing-impaired children, 0-3, and their parents. Doctoral dissertation, 1971. University Microfilms, Ann Arbor, Michigan. Microfilm - \$4.00, Xerox copy - \$10.00.